



PIONEER®
The future of sound and vision.

Service Manual

• KEH-M800/EW



ORDER NO.
CRT 1234

MULTI-CD CONTROL FM/MW/LW (FM/AM) TUNER DECK

KEX-M800

EW, ES, UC

KEX-M800SDK

WG

SPECIFICATIONS

General

Power source 14.4 V DC (10.8–15.6 V allowable)
Grounding system Negative type
Weight 1.7 kg (3.7 lbs.)
Tone controls (bass) ± 10 dB (100 Hz)
(middle) ± 10 dB (1 kHz)
(treble) ± 10 dB (10 kHz)
Loudness contour +12 dB (100 Hz), +7 dB (10 kHz)
(volume: –30 dB)

Output impedance 1 k Ω

KEX-M800SDK/WG, KEX-M800/EW

Max. current consumption 1.0 A
Dimensions (chassis) 180(W) $\times$ 50(H) $\times$ 152(D) mm
(front face) 188(W) $\times$ 58(H) $\times$ 12(D) mm
Maximum output level 250 mV

KEX-M800/ES, KEX-M800/UC

Dimensions (chassis) 178(W) $\times$ 50(H) $\times$ 155(D) mm
[7(W) $\times$ 2(H) $\times$ 6-1/8(D) in.]
(nose) 170(W) $\times$ 46(H) $\times$ 10(D) mm
[6-3/4(W) $\times$ 1-3/4(H) $\times$ 3/8(D) in.]
Preout output level 500 mV

Tape player

Tape Compact cassette tape (C-30–C-90)
Tape speed 4.76 cm/sec. (+0.14 cm/sec., –0.05 cm/sec.)
Fast forward/rewind time Approx. 100 sec. for C-60
Wow & flutter 0.08% (WRMS)
Frequency response Metal: 25–22,000 Hz (± 3 dB)
Stereo separation 45 dB
Signal-to-noise ratio

..... Metal: Dolby C NR IN: 73 dB (IHF-A network)
Dolby B NR IN: 67 dB (IHF-A network)
Dolby NR OUT: 61 dB (IHF-A network)

FM tuner

Frequency range (KEX-M800SDK/WG, KEX-M800/EW) 87.5–108 MHz
Frequency range (KEX-M800/ES, UC) 87.9–107.9 MHz (200 kHz)
(KEX-M800/ES) 87.5–108 MHz (50 kHz)
Usable sensitivity 11 dBf (1.0 μ V/75 Ω , mono)
50 dB quieting sensitivity 16 dBf (1.7 μ V/75 Ω , mono)
Signal-to-noise ratio 70 dB (IEC-A network)
Distortion 0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response 25–15,000 Hz (± 3 dB)
Stereo separation 40 dB (at 65 dBf, 1 kHz)

KEX-M800/UC

Selectivity 80 dB (2ACA)
Three-signal intermodulation (desire signal level)
..... 45 dBf (two undesire signal level: 110 dBf)

MW (AW)-Tuner

Frequency range (KEX-M800/ES, UC) 530–1710 kHz (10 kHz)
(KEX-M800SDK/WG, KEX-M800/EW, ES) 531–1602 kHz (9 kHz)
Usable sensitivity 18 μ V (25 dB) (S/N: 20 dB)
Selectivity 50 dB (± 10 kHz)
50 dB (± 9 kHz)

LW-Tuner (KEX-M800SDK/WG, KEX-M800/EW)

Frequency range 153–281 kHz
Usable sensitivity 30 μ V (30 dB) (S/N: 20 dB)
Selectivity 50 dB (± 9 kHz)

Note:

Specifications and the design are subject to possible modification without notice due to improvements.

- Dolby and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.
- Noise Reduction System manufactured under license from Dolby Laboratories Licensing Corporation.

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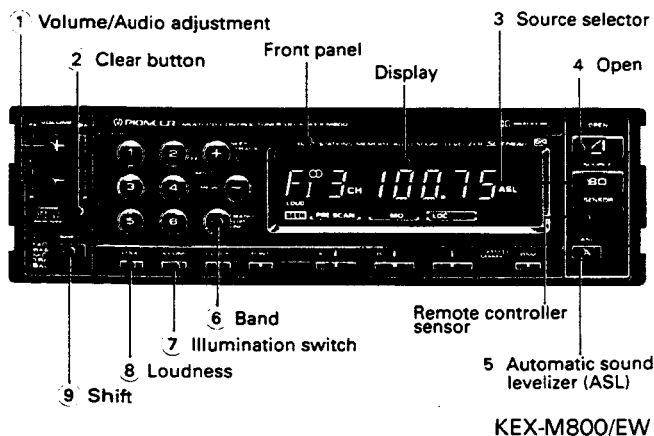
EC JULY 1989 Printed in Japan

MC-Service

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1. ADJUSTING VOLUME AND TONE



Switching Power On

Tuner

Press button ③ to switch the tuner power on. Press button ③ again to switch the power off.

Tape

Press button ④ to open the front panel, and load a cassette in through cassette slot ⑩. The cassette will play. To eject the cassette, press button ④ to open the front panel and press button ⑪.

Note:

- None of the operation buttons except button ⑪ work while the front panel is open. Use the control buttons after shutting the front panel.
- During operation, the power to this unit is turned off if the engine is started or if the ignition is turned off then to ACC or ON again while the front panel is open. In this case, close the front panel to resume operation.

Source Selector

When a cassette is loaded and button ③ is pressed, the source shifts in the order tape → tuner → power off. If this unit is combined with a multi-play CD player sold separately such as CDX-M70, or if a CD player is connected to the auxiliary input (AUX), the source shifts in the order multi-play CD player → tape → tuner → AUX (CD player).

- If a CD player is connected to the auxiliary input (AUX), the power to this unit will not switch off, even if button ③ is pressed, when the CD player is operating. To switch the power off, stop the CD player.
- When the source is switched to AUX (CD player), the display indicates CD.

CD

Using the Clear Button

Once all wiring is complete, press button ② with a thin, pointed object. Though not a normal occurrence, the microprocessor which controls the operation of this unit can be affected by electrostatic noise. This generally is indicated by such symptoms as no power being supplied when you switch the unit on, failure of buttons and controls, or an abnormal display. Should this happen, press button ② with a thin, pointed object to reset the microprocessor. Note that doing so also resets all audio controls, so you will have to make any desired settings again. This operation deletes all memory contents, such as frequencies stored in the preset memory, so you will have to make any desired settings again.

Adjusting Audio

Press button ① to adjust the volume. Each press of button ① changes the display and the function of button ① as follows:

Volume → Fader → Bass → Middle → Treble → Balance

Adjusting Volume

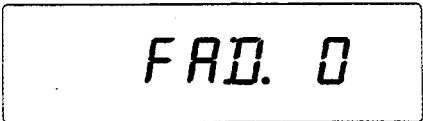
Pressing the (+) side of button ① increases the volume, while the (-) side decreases it.



Adjusting the Fader

This function controls the balance between the front and rear speakers of a 4-speaker system. Pressing the (+) side of button ① shifts the balance to the front speakers, while the (-) side shifts it to the rear speakers.

For 2-speaker systems, set FAD. 0.



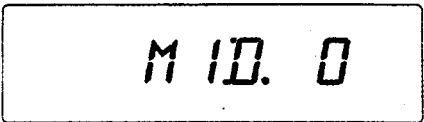
Adjusting Bass

Pressing the (+) side of button ① increases bass, while the (-) side decreases bass.



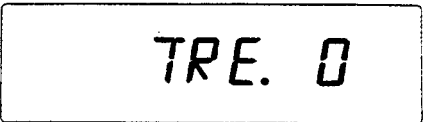
Adjusting Middle

Pressing the (+) side of button ① increases middle, while the (-) side decreases middle.



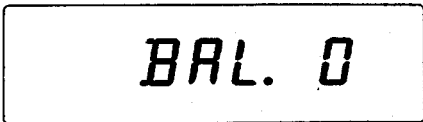
Adjusting Treble

Pressing the (+) side of button ① increases treble, while the (-) side decreases treble.



Adjusting Balance

Pressing the (+) side of button ① shifts the balance to the left speaker, while the (-) side shifts it to the right speaker.



- When you're adjusting fader, bass, middle, treble, or balance settings, the indicator will stop at the center setting. About 5 seconds after adjustment has been made, the display returns to its previous state.

ASL (Automatic Sound Levelizer)

Press button ⑤ to operate ASL (automatic sound levelizer). ASL monitors the noise inside the vehicle, which changes according to the driving speed and the road conditions, and automatically increases the volume when the noise increases. (ASL is shown on the display.)

- At high volume, ASL automatically reduces the selected intensity if it will make the volume too loud.
- If ASL operates and the volume becomes too high, the sound may be distorted. In this case, reduce the volume.

ASL Intensity Selection

ASL has three different intensity modes (increases in volume according to noise). The greatest increase is obtained with ASL-H, followed by ASL-M, then ASL-L.

1. Hold down button ⑤ for at least 2 seconds. The current ASL mode will be shown on the display for about 5 seconds.



(Example: ASL-L)

2. While the display indicates an ASL mode, press either the (+) or (-) side of button ① to change the ASL mode.
- About 5 seconds after the ASL mode has been changed, the display returns to the previous indication.

Using Source Level Adjuster

You may wish to adjust volume when you have changed the source to radio, tape, or CD or when you have changed the radio band from FM to MW/LW. You can do so on the basis of the volume of FM as follows:

1. Use the button ③ to change the source. (In case of radio, change the band to MW/LW.)
2. Hold down the button ⑤ for about 2 seconds, and the display will show you the volume of the source.



3. To increase the volume, press the (+) side of the button ①, and to decrease press the (-) side. You can adjust the volume within a span of V -4 and V 4. The display automatically returns to the previous showing when five seconds have elapsed after the adjustment.
- No adjustment can be made when an FM station is tuned in.

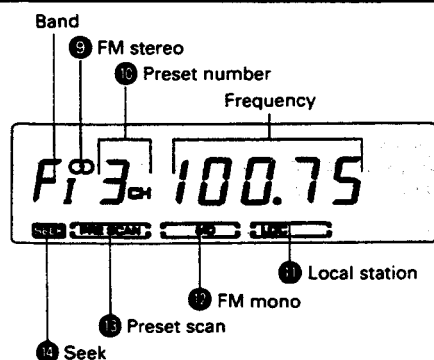
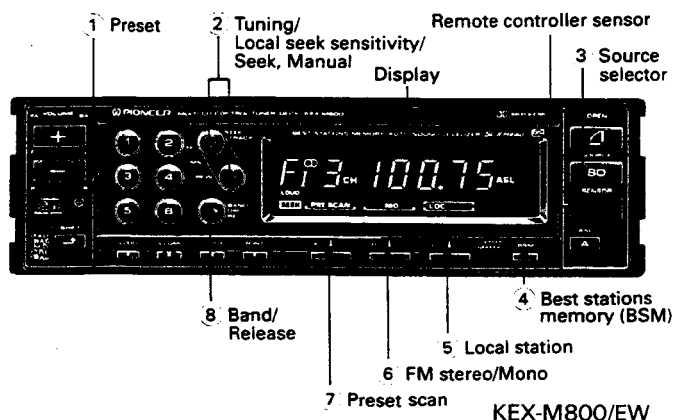
Using the Loudness Function

Press button ⑥ and the LOUD indicator will appear on the display. This "loudness" function enhances both the high and low ranges of sound to give even more power to output even at low volumes.

Switching Illumination Colour

Press button ⑦ to switch illumination colour between green and amber. Pressing clear button ② causes the illumination to be turned amber.

2. USING THE TUNER



1 Press button ③ to switch the tuner power on.

2 Press button ⑧ to select a band.

$F_I \rightarrow F_{II} \rightarrow F_{III} \rightarrow M/L$
(FM1) (FM2) (FM3) (MW/LW)

Use button ② to switch between MW (531–1,602 kHz) and LW (153–281 kHz).

3 Use seek tuning to tune in a frequency.

Confirm that the SEEK indicator ⑭ is shown on the display (if not, press the (+) and (–) sides of button ② at the same time).

Press the (+) side of button ② to automatically tune in the next higher receivable frequency, and the (–) side for a lower frequency.

4 Adjust volume and tone (see page 2).

5 Assign the tuned frequency to one of the buttons in bank ① (preset memory).

Press and hold down one of the buttons in bank ① for at least two seconds. The frequency is assigned to the selected button when the preset number ⑩ stops flashing on the display. Up to 18 FM stations (6 each for FM1, FM2 and FM3) and six MW/LW stations can be assigned to the preset memory buttons in bank ①.

6 Once a frequency is assigned to a button in bank ①, you just need to press that button to tune it in.

This also causes the number of the button pressed to appear at position ⑩ on the display.

Preset Scan Tuning

This function lets you automatically monitor the stations assigned to the preset buttons.

1. Press button ⑦. (Bar ⑮ appears.) Preset number ⑩ flashes and each station in the memory for button ① is sequentially called for 8 seconds.

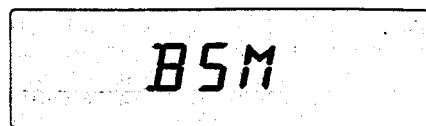
2. When you hear a station that you like, press button ⑦ again to cancel preset scan tuning and remain at that station.

BSM (Best Stations Memory)

This function automatically locates stronger stations and automatically assigns their frequencies to the buttons in bank ①, from strongest to weakest. It comes in handy when trying to find local stations while driving.

1. Press button ④ and select a band.

2. Hold down button ④. After about two seconds, a “beep” will sound to signal that the BSM search has started. At this time, BSM will flash on the display.



3. The frequency display will return once BSM search is complete, and frequencies are assigned to buttons 1 through 6 in bank ①.

• At the end of the BSM search, the displayed frequency is that assigned to button ① of bank ①.

• If there are fewer than six strong stations in the area, some of the buttons in bank ① will not be assigned frequencies, so they will retain any frequencies assigned to them previously.

• BSM search may take as long as 30 seconds in areas where there are few strong stations.

• You can cancel BSM search by pressing button ⑧.

Manual Tuning

Use manual tuning when stations are too weak to be picked up by seek tuning.

1. Press both (+) and (–) sides of button ② at the same time to clear SEEK ⑭.

2. Each press of the (+) side of button ② increases the frequency in 50 kHz steps in the FM band, 9 kHz in the MW band and 1 kHz in the LW band. Pressing the (–) side of button ② decreases the frequency. Holding down either side of button ② changes the frequency at high speed.

Switching between FM Stereo and Mono

Generally, it is best to allow the ARC (Automatic Reception Control) function to automatically set the optimum listening conditions. When there is a large amount of noise, you can press button ⑥ for clearer, mono reception (bar ⑮ appears).

Adjusting Seek Sensitivity

The seek tuning function of this tuner lets you select between a local setting for reception of strong stations only, and a DX (distant) setting for reception of weaker stations. The local setting also has four seek tuning sensitivity levels for FM and two levels for MW/LW to match local conditions.

Changing the Local Seek Sensitivity

1. Use button ⑧ to select a band.

2. Hold down the button ⑤ for more than two seconds, and the display will show you the current local seek sensitivity for about five seconds.



(Example: LOC-2)

3. While the local seek sensitivity remains on the display, press the (+) side of button ② to increase the sensitivity level, and the (-) side to decrease the level as shown below.

FM : LOC-1=LOC-2=LOC-3=LOC-4
MW/LW : LOC-1=LOC-2

The LOC-4 setting allows reception of only the strongest stations, while lower settings let you receive progressively weaker stations.

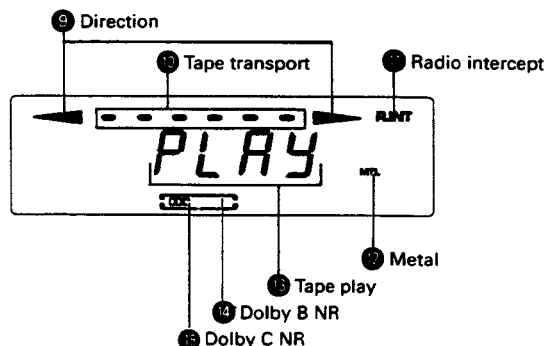
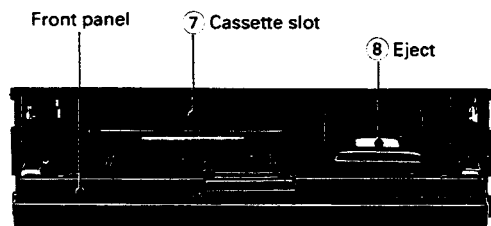
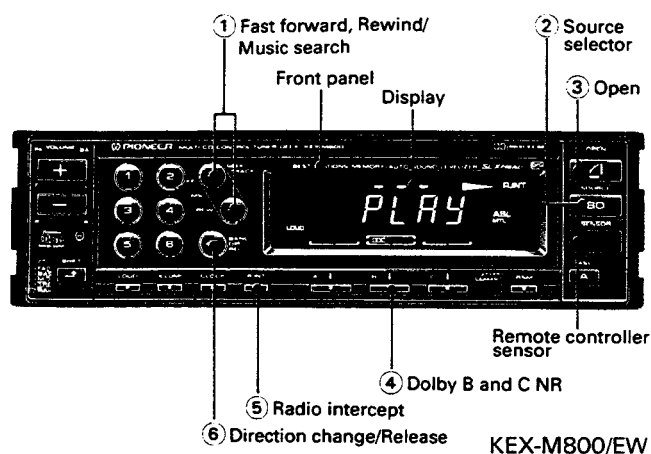
- The display of local seek sensitivity returns to the frequency when about five seconds have elapsed after the change of sensitivity.

Switching between Local and DX

Press button ⑤ to switch between Local and DX (distant) seek tuning.

When bar ● is shown on the display, seek tuning is performed with the local seek sensitivity. Otherwise, seek tuning is performed with the DX seek sensitivity.

3. USING THE TAPE DECK



- Press button ③ to open the front panel.
- Load a cassette in through the cassette slot ⑦. The cassette will play.
Tape play ⑬, tape transport ⑩, and direction ⑨ appear.

Note on LW Band Seek Tuning

The following shows changes in LW BAND broadcast frequency steps enacted by WARC/1979. The underlined italic figures indicate changes.

A. Up to January 1986

155-164-173-182-191-200-209-218-227-236-245-254-263-272-281

B. From February 1986

153-162-171-180-189-200-209-218-227-236-245-254-263-272-281

C. From February 1988

153-162-171-180-189-198-207-216-225-234-245-254-263-272-281

D. From February 1990

153-162-171-180-189-198-207-216-225-234-243-252-261-270-279

The LW band seek operations of this unit are performed in 9 kHz steps starting from 153 kHz. In the case of C, the first ten frequencies are identical to each station being broadcast, while the remaining five are shifted (2 kHz each). Consequently, manual tuning (in 1 kHz steps) and seek tuning should be used together to tune in the desired LW broadcast. It is also suggested that your favorite LW stations will be memorized for instant recall.

- Close the front panel and adjust volume and tone (see page 2).

- To stop play halfway, press button ② to switch the function off.

To restart play, press button ② some times until PLAY ● appears on the display. The tape begins playing at the position where it stopped.

- To eject the cassette, press button ③ to open the front panel and press button ⑧.

Note:

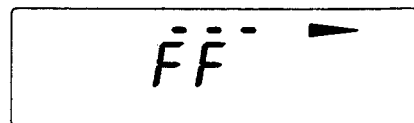
- The power is not switched on even if a cassette is loaded in through cassette slot ⑦, if the engine is started or if the ignition is turned off then to ACC or ON again while the front panel is open. In this case, close the front panel to switch the power on and start play.
- Power is automatically turned off when the cassette tape has not been set within a few seconds. When this happens, remove the tape by pressing the button ⑧ because of a possible trouble with the tape.
- A loose or warped label on a cassette tape may interfere with the eject mechanism of the unit or cause the cassette to become jammed in the unit. Avoid using such tapes or remove such labels from the cassette before attempting use.

Changing Program

Press the button ⑥ to change the side of tape from A to B or vice versa.

Using Fast Forward and Rewind

- To fast-forward tape, press the (+) side of the button ①.



To rewind tape, press the (-) side.



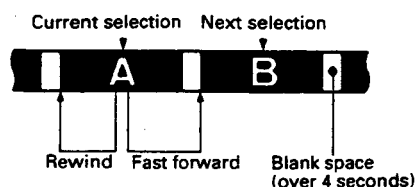
- To release the fast forward or rewind function, press the button ⑥.

Using Radio Intercept

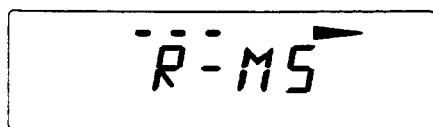
Use radio intercept to hear radio while fast forward or rewinding.

1. Press the button ⑤ (R.INT ● appears) before fast forward or rewinding, and you will hear radio.
2. To release the radio intercept function, press the button ⑤ again.
- The radio intercept does not function when the music search is in operation.

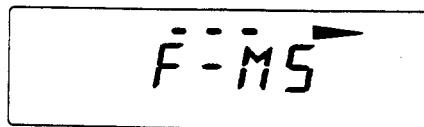
Using Music Search



1. To repeat the current selection (A), press the (-) side of the button ① two consecutive times.



To hear the following piece of music (B) rather than continue the current selection, press the (+) side of the button ① two consecutive times. Pressing the button ① three consecutive times makes the normal sequence of playing resume.



2. To release the music search function, press the button ⑥.

The following errors will cause the music search function to operate improperly, even though the unit is not malfunctioning.

- Unrecorded blank portion between selections is less than 4 seconds → the blank portion cannot be detected by the unit.
- Pauses in recorded conversations are longer than 4 seconds → the unit reads these as blanks between selections.
- Portions are recorded at very low volume for more than 4 seconds → the unit reads these as blanks between selections.

Dolby B and C NR

Press button ④ to listen to a cassette recorded using the Dolby NR system. Each press of button ④ shifts the Dolby NR mode as follows:

Dolby B NR (Bar ● appears) → Dolby C NR (C ● appears) → Dolby NR off.

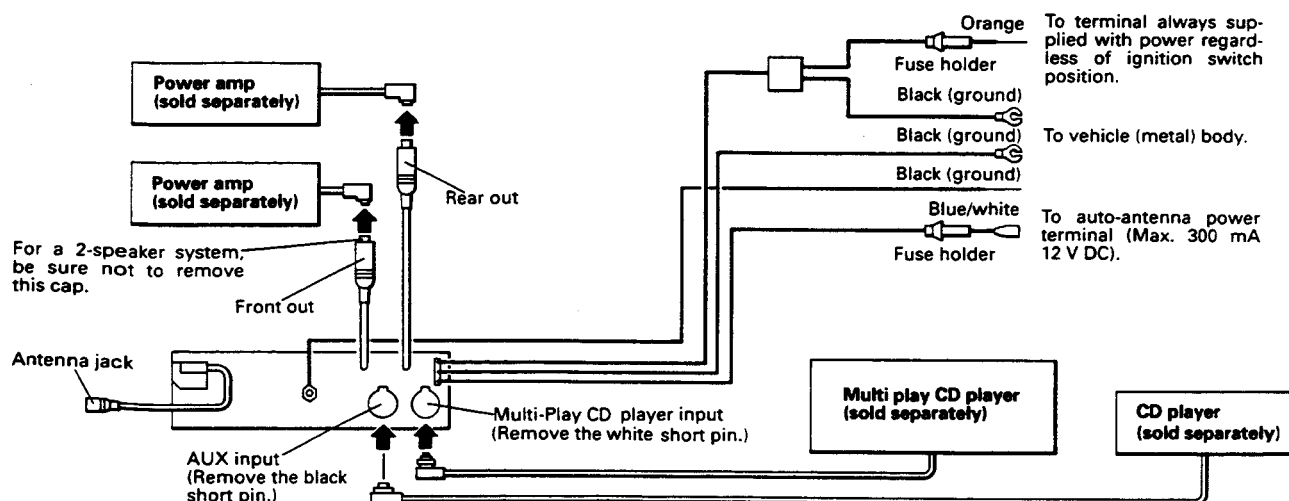
Auto Tape Selector

When a cassette tape is inserted, the automatic tape selector determines the tape type, and switches between 70 μ s and 120 μ s equalization. When it is a metal or chrome tape, MTL ● comes on. When it is a normal tape, nothing comes on.

4. CONNECTING THE UNITS

- Before making final connections, make temporary connections then operate the unit to check for any connecting cord problems.
- Refer to the owner's manual for details on connecting the various cords of the power amp and other units then make connections correctly.
- Be sure to connect the memory power supply lead (orange) to a terminal that is always supplied with power regardless of the vehicle's ignition switch position. If this connection is made incorrectly or is forgotten, the unit will not work at all.

- Don't pass that orange lead through a hole into the engine compartment to connect to the battery. This will damage the lead insulation and cause a very dangerous short.
- When the multi-play CD player input or the AUX input is not in use, leave the short pin on it.
- For 2-speaker systems, wire the rear output cord to the main amp.



5. DISASSEMBLY

• Removing the Case

1. Insert and turn a flat screwdriver to remove the case.
2. Raise the case to remove.

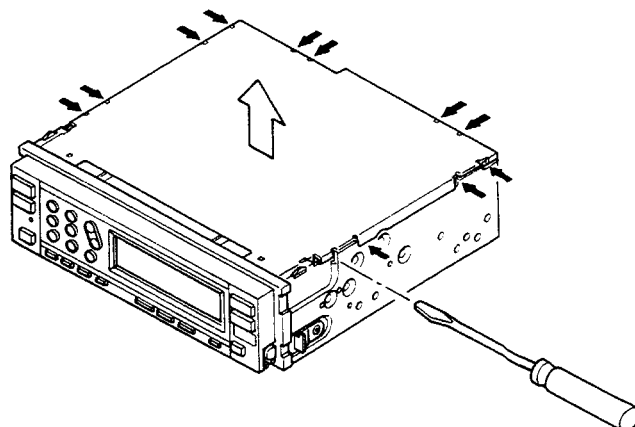


Fig. 1

• Removing the Cassette Mechanism Assy

1. Remove the four screws.
2. Disconnect the mechanism control unit connector.
3. Remove the cassette mechanism assy.

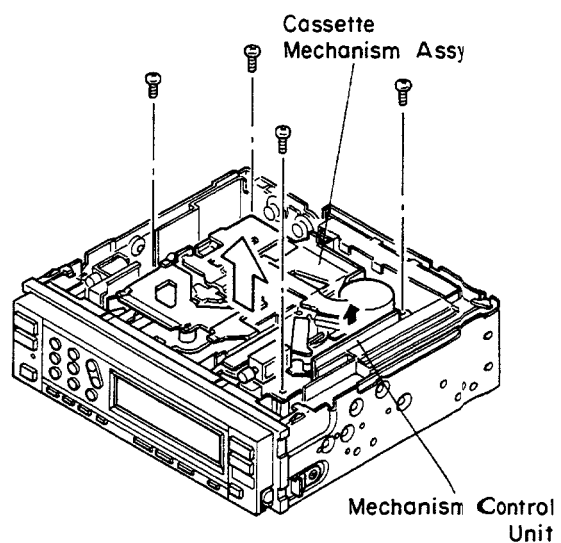


Fig. 2

• Removing the Grille Assy

1. Press the solenoid lever in the direction of the arrow to open the grille assy. (Fig. 3)

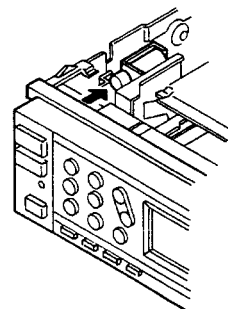


Fig. 3

2. While holding down the lock button, pull the grille assy toward you. (Fig. 4)

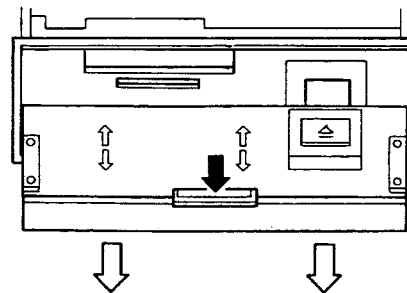


Fig. 4

• Removing the Holder Assy

1. Remove the two screws. (Fig. 5)
2. Disconnect the four connectors. (Fig. 6)
3. Press the tabs at three locations indicated by arrows, and then pull out the holder assy. (Fig. 6)

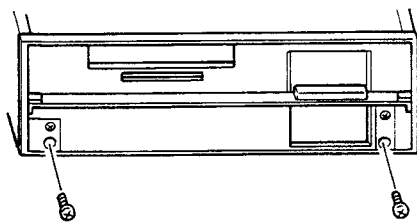


Fig. 5

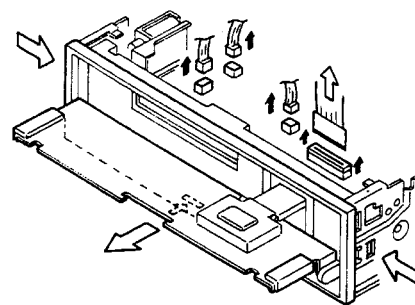


Fig. 6

• Removing the Display Unit

1. Remove the three screws, and then remove the cover unit.
2. Remove the three screws, and then remove the display unit.

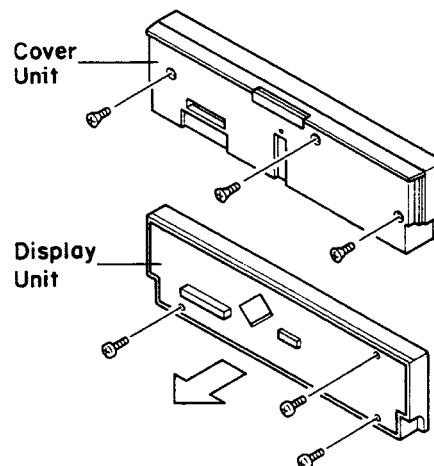


Fig. 7

• Removing the Audio Tuner Unit

1. Remove the three screws A, and then remove the holder.
2. Remove the two screws B.
3. Unbend the tab indicated by arrow until straight.
4. Raise up on audio tuner unit to remove it from chassis unit.

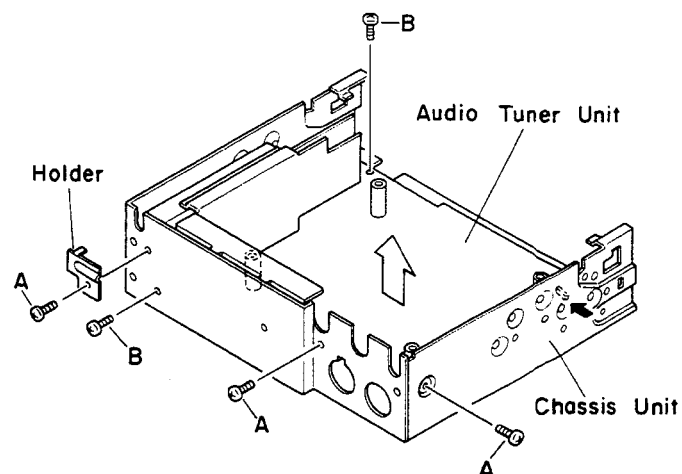


Fig. 8

• Removing the Amp P.C. Board and FM/AM Tuner Unit

1. Remove the solders and unbend the tabs on back of each unit circuit board until straight.
2. Pull out unit as shown in illustration.

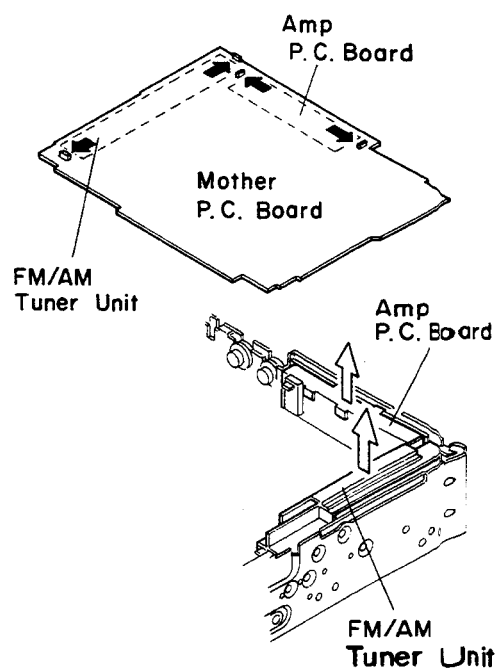


Fig. 9

6. ADJUSTMENT

• Connection Diagram

NOTICE:

Select C1 so that total capacity of 80pF is attained from the direction of the receiver jack.

Z: Output impedance of SSG.

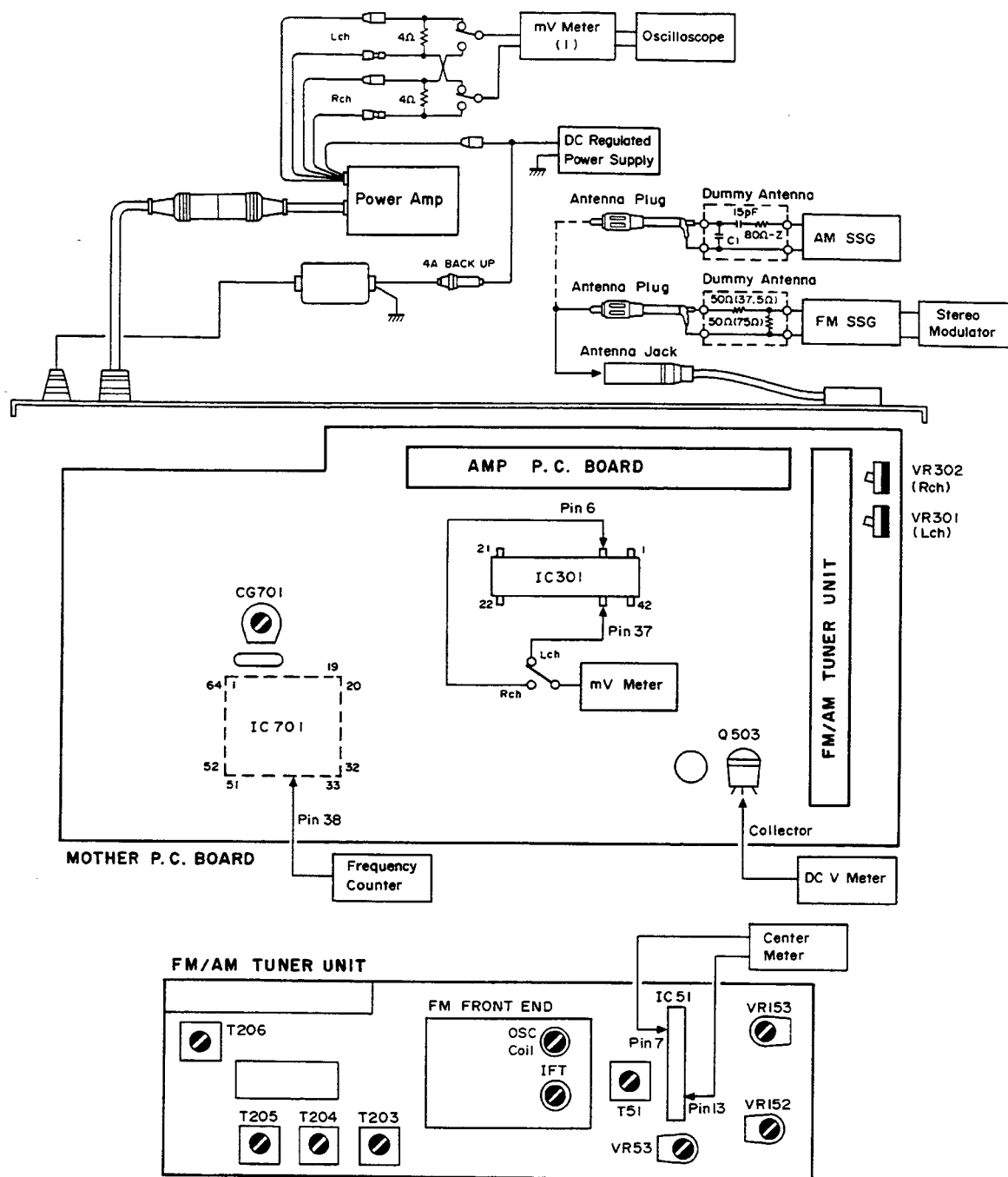


Fig. 10

DOLBY NR LEVEL ADJUSTMENT

No.	Cassette Tape	Adjusting Point	Adjustment Method (Switch Position)
1	NCT-150 (400Hz, 200nwb/m)	VR301 (Lch), VR302 (Rch)	mV Meter: -8.2dBs ± 1dB (Dolby NR Switch: OFF, METAL Switch: OFF)

7. CASSETTE MECHANISM DISASSEMBLY

Note: Always use new washer and E washer at the time of reassembling.

• Dismounting the Cassette Holder

1. Remove the three springs.
2. Take off E washer, and then remove the arm unit.
3. Make the claw straight.
4. Shift the cassette holder toward the left and pull it out from above.

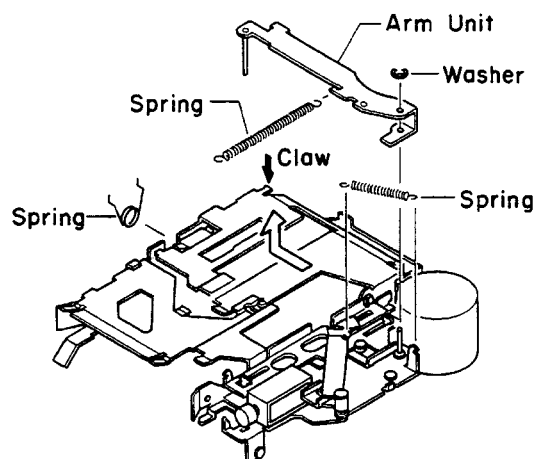


Fig. 11

• Dismounting the Head Unit

1. Remove the two screws, and then remove the guide assy.
2. Remove the two screws, and then remove the head unit.

• Dismounting the Pinch Roller Unit

1. Remove the spring and then remove the pinch roller unit

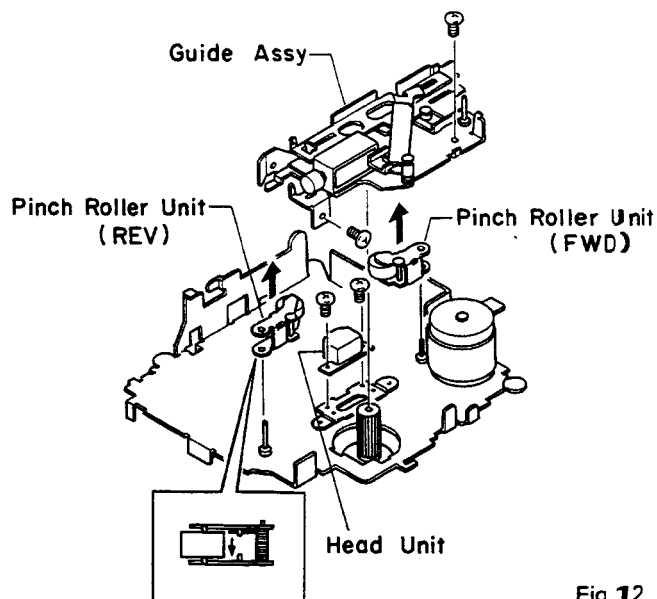


Fig. 12

• Dismounting the Gear (Reel Base)

1. Remove the two screws, and then remove the cover.
2. Remove the collar, and then remove the spring and gear.

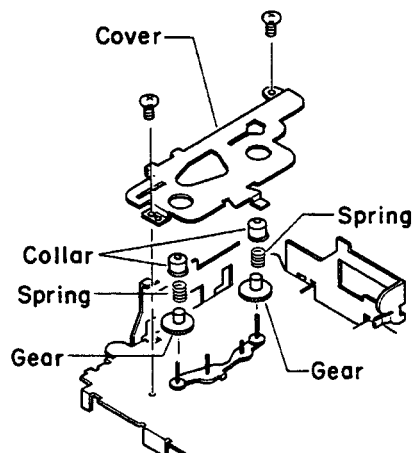


Fig. 13

CLOCK ADJUSTMENT

No.	Adjusting Point	Adjustment Method (Switch Position)
1		Pin 45 of IC701 connect to pin 51 of IC701
2	C6701	Frequency Counter:1,048,576Hz $\pm$ 1Hz

MW/LW ADJUSTMENT (KEX-M800 SDK/WG, KEX-M800/EW)

	No.	AM SSG (400Hz, 30%)		Displayed Frequency (kHz)	Adjusting Point	Adjustment Method (Switch Position)
		Frequency (kHz)	Level (dB μ V)			
Tuning Volt	1	(MW Mode)		1.602	T203	DC V Meter:Less than 7.0V
	2	(LW Mode)		153		Verify that DC V Meter is more than 2.0V
IF	1	999	20-25	999	T204, T205, T206	mV Meter (1):Maximum

AM ADJUSTMENT (KEX-M800/ES, UC) *:ES model when tuning step at 9kHz.

	No.	AM SSG (400Hz, 30%)		Displayed Frequency (kHz)	Adjusting Point	Adjustment Method (Switch Position)
		Frequency (kHz)	Level (dB μ V)			
Tuning Volt	1			1.710 *(1.602)	T203	DC V Meter:Less than 7.0V
	2			530 *(531)		Verify that DC V Meter is more than 2.0V
IF	1	1,000 *(999)	20-25	1,000 *(999)	T204, T205, T206	mV Meter (1):Maximum

FM ADJUSTMENT ※Stereo MOD.:1kHz, L+R=90%, Pilot=10% *:ES model when tuning step at 50kHz.

	No.	FM SSG (400Hz, 100%)		Displayed Frequency (MHz)	Adjusting Point	Adjustment Method (Switch Position)
		Frequency (MHz)	Level (dB μ V)			
Tuning Volt	1			108.0 (WG, EW) 107.9 (ES, UC) *(108.0)	OSC Coil (FM Front End)	DC V Meter:7.0V
IF	1	98.1 Unmodulated	60	98.1	T51	Center Meter:0
	2	98.1	5	98.1	IFT (FM Front End)	mV Meter (1):Maximum
Mute	1	98.1	60	98.1		mV Meter (1):A dB (This output is A)
	2	98.1	10	98.1	VR53	mV Meter (1):A-3dB
ARC	1	98.1※	60	98.1	VR153	mV Meter (1):Separation Maximum (Stereo Position)
	2	98.1※	35	98.1	VR152	mV Meter (1):Separation 5dB (Stereo Position)

• Dismounting the Flywheels

1. Remove the two screws, and then remove the cover.
2. Take off E washer. Retain washer properly to ensure it doesn't get lost.
3. Remove the flywheels. Do not mistake the N and R flywheels.

• Dismounting the Motor Unit

1. Remove the two screw, and then remove motor unit.

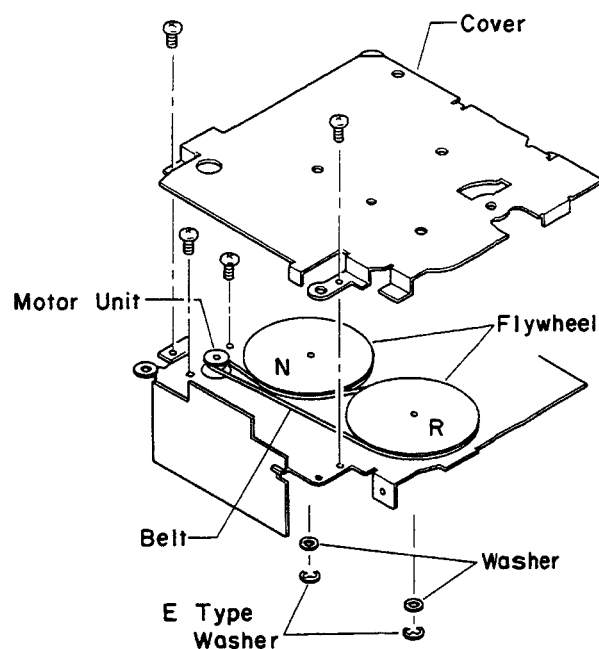


Fig. 14

8. MECHANISM DESCRIPTION

8.1 PARTS LOCATION

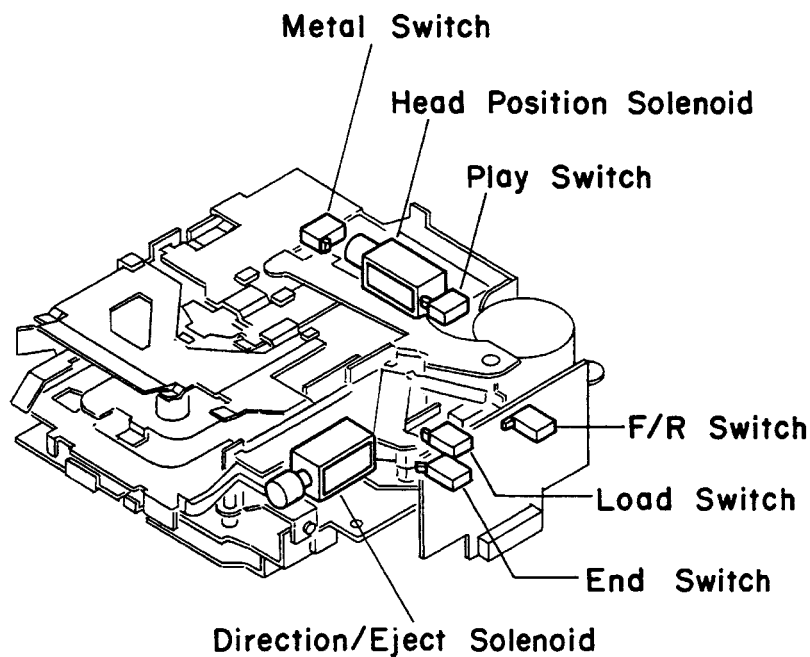


Fig. 15

8.2 DRIVING MECHANISM

• ATSC (EJECT) Mode

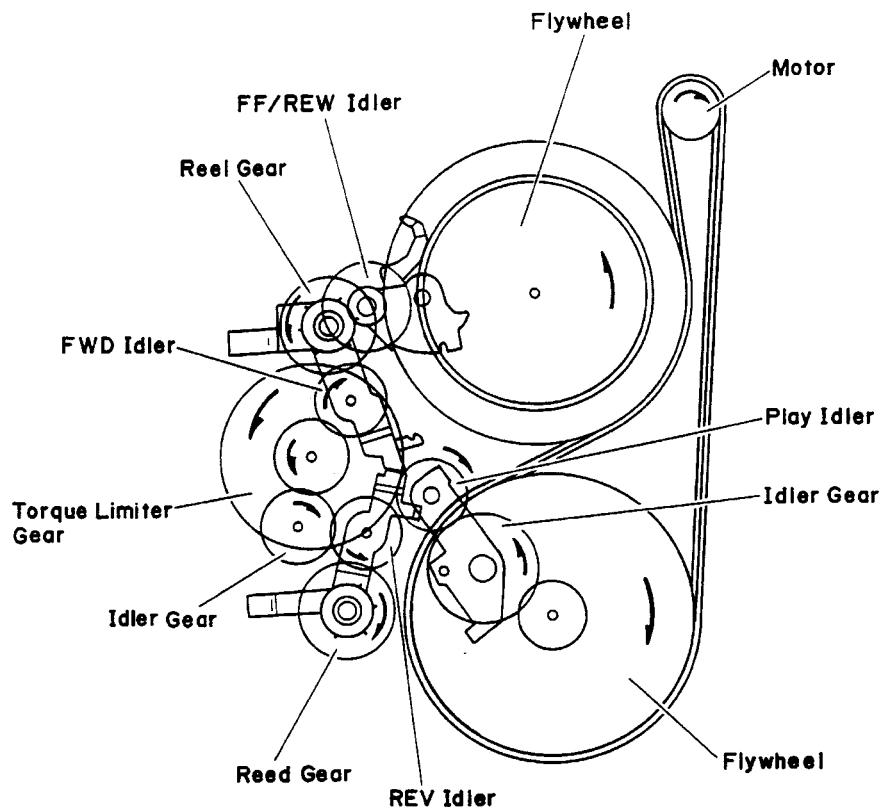


Fig. 16

• FWD PLAY Mode

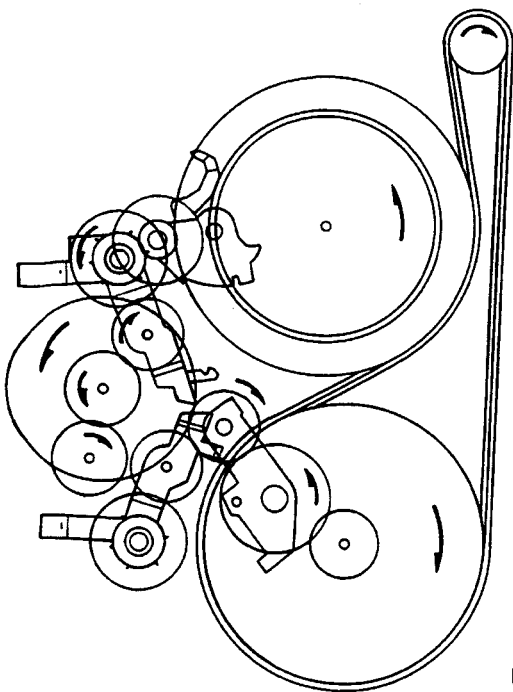


Fig. 17

• REV PLAY Mode

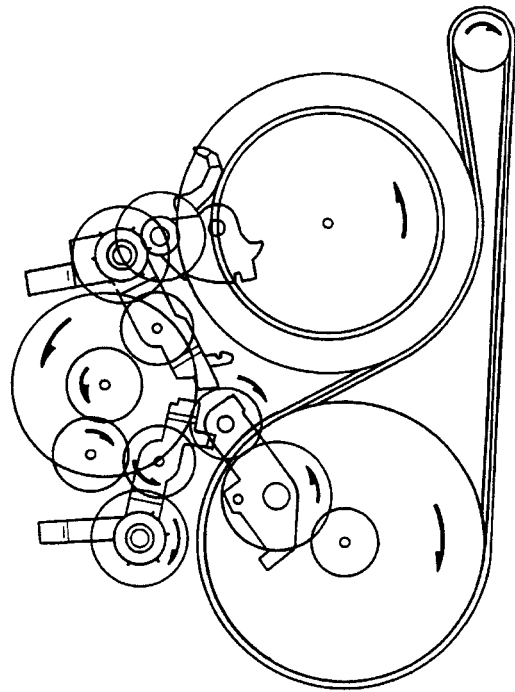


Fig. 18

• FF Mode

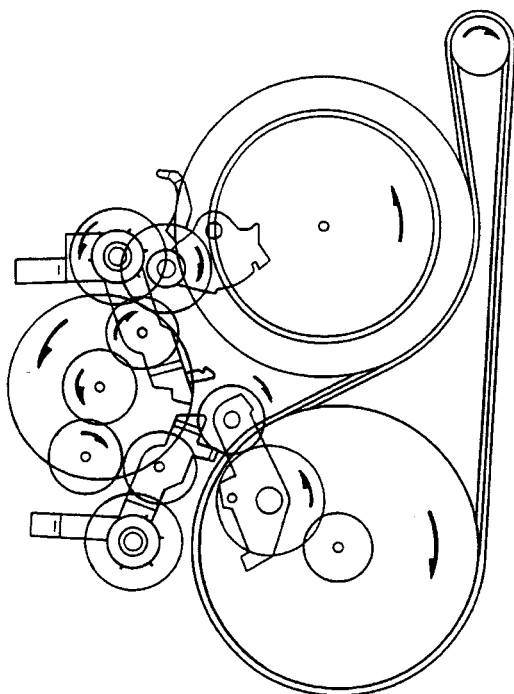


Fig. 19

• REW Mode

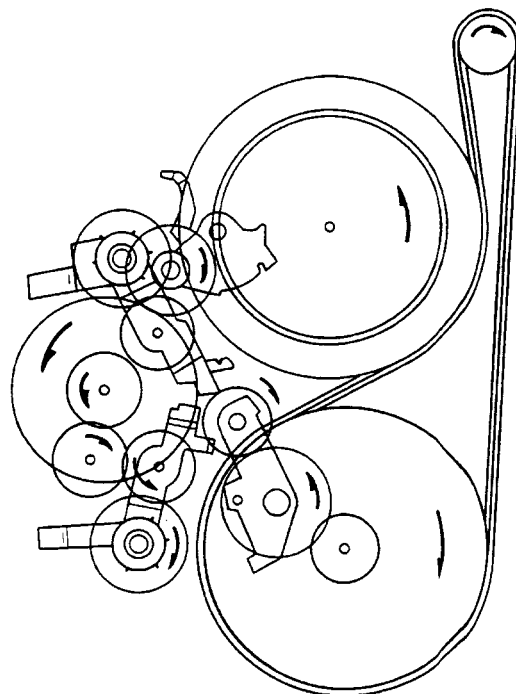


Fig. 20

9. CASSETTE MECHANISM ADJUSTMENT

9.1 AZIMUTH ADJUSTMENT

• To Adjust

1. Play "A" side of NCT-110 (10 kHz, -10 dB). Adjust each screw for maximum output in forward and reverse directions.
2. Play "B" side in forward and reverse directions to confirm adjustment.

9.2 TAPE SPEED ADJUSTMENT

• To Adjust

1. Reproduce NCT-111 (3 kHz, -10 dB). Adjust the semifixed resistor so that frequency counter shows 3,010 Hz (+80 Hz, -40 Hz).

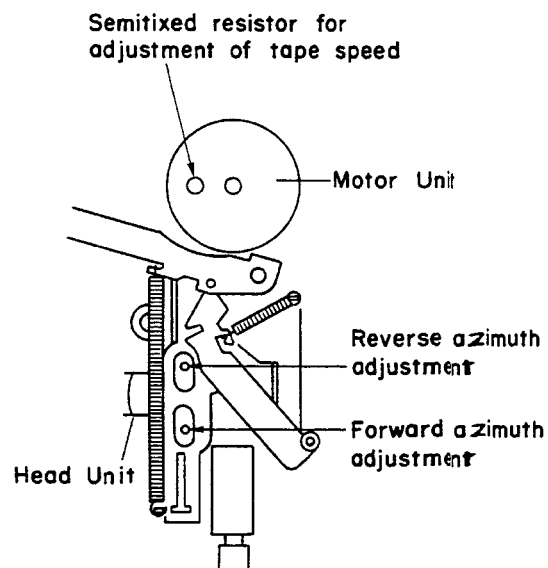


Fig. 21

9.3 CHECK POINTS OF CASSETTE MECHANISM

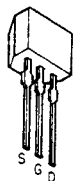
Confirm the following items when replacing parts of the cassette mechanism.	■ Tape speed deviation: $3,000 \begin{smallmatrix} +90 \\ -30 \end{smallmatrix} \text{ Hz}$ $(4.76 \text{ cm/s} \begin{smallmatrix} +3 \\ -1 \end{smallmatrix} \%)$ Using an NCT-111, measure the speed at the start and end of winding and take the maximum value. If values indicated by the pointer vary considerably, adjust to 70% of the minimum and maximum values. Measuring time shall be 5 — 6 seconds.	■ Wow and flutter: Less than 0.18% (WRMS) Using an NCT-111, measure the wow and flutter at the start and end of winding and take the maximum value. If values indicated by the pointer vary considerably, adjust to 70% of the minimum and maximum values. Measuring time shall be 5 — 6 seconds.
■ Fast forward and rewinding time: 95—115 seconds Using a C-60, set to fast forward and rewind, and measure the time with a stop watch.	■ Winding torque: 37—63g • cm Using a cassette type torque meter (100 g•cm), measure the minimum value while in the play mode. Measuring time shall be 2.5 — 6 seconds.	■ F.F. torque: 70—110g • cm Using a cassette type torque meter (120 g•cm), measure the value when the tape stops in the F.F. mode.
■ REW torque: 70—110g • cm Using a cassette type torque meter (120 g•cm), measure the value when the tape stops in the REW mode.	■ Back tension torque: 0.5—5 kg After setting in the REW mode without loading a cassette tape for 5 minutes, measure the back tension torque in the play mode, using a cassette type torque meter.	■ Cassette loading force: Less than 0.5 kg Push the center of the cassette and measure the force with a tension meter (3 kg).

• ICs and Transistors

2SB1243
2SD1859



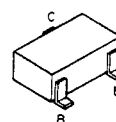
2SK330



2SJ106



2SC2712
2SC3295
2SC4116



2SB945



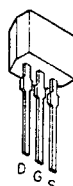
2SK435



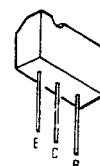
2SA1048
2SA1150
2SC2458



2SK184



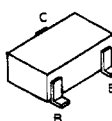
2SC1545F



UN4122
UN4211
UN4212



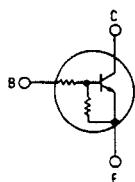
DTC124EK
DTC144EK
DTC343TK



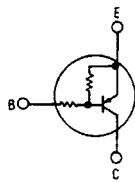
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DTC114ES
DTC124ES
DTC143ES
DTC143TS
DTC144TS
DTC314TS
DTC343TS



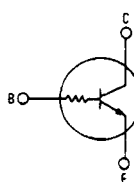
UN4211
UN4212
DTC114ES
DTC124ES
DTC143ES



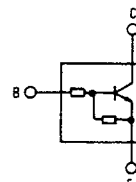
UN4122
DTA124ES



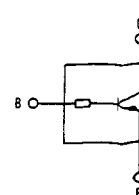
DTC143TS
DTC144TS
DTC314TS
DTC343TS



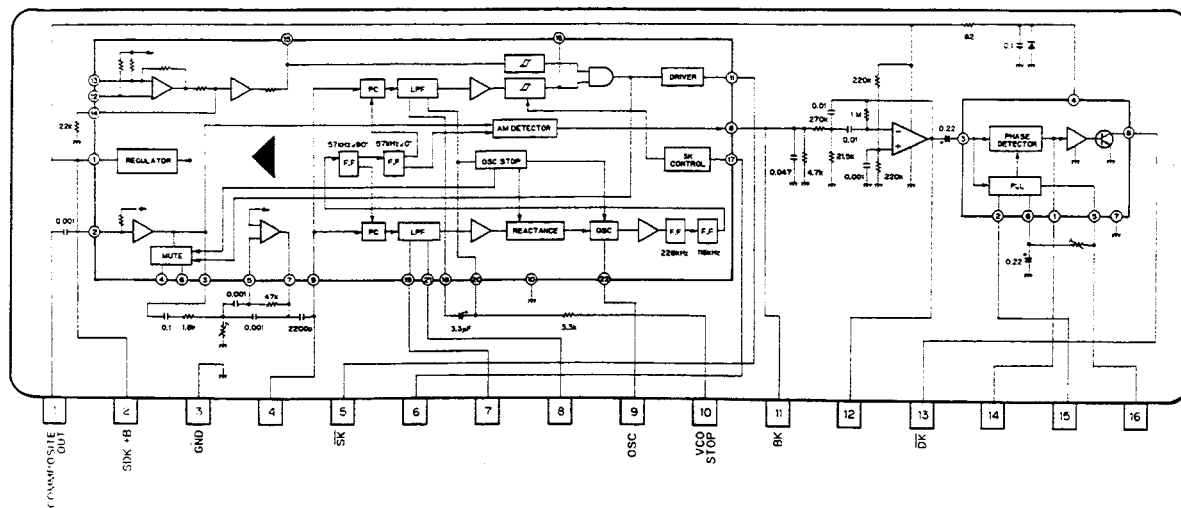
DTC124EK
DTC144EK



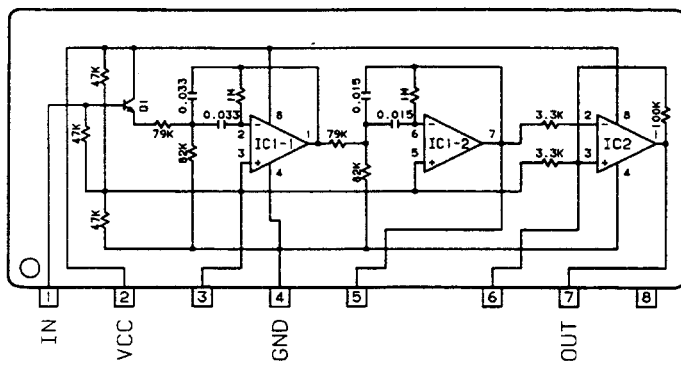
DTC343TK



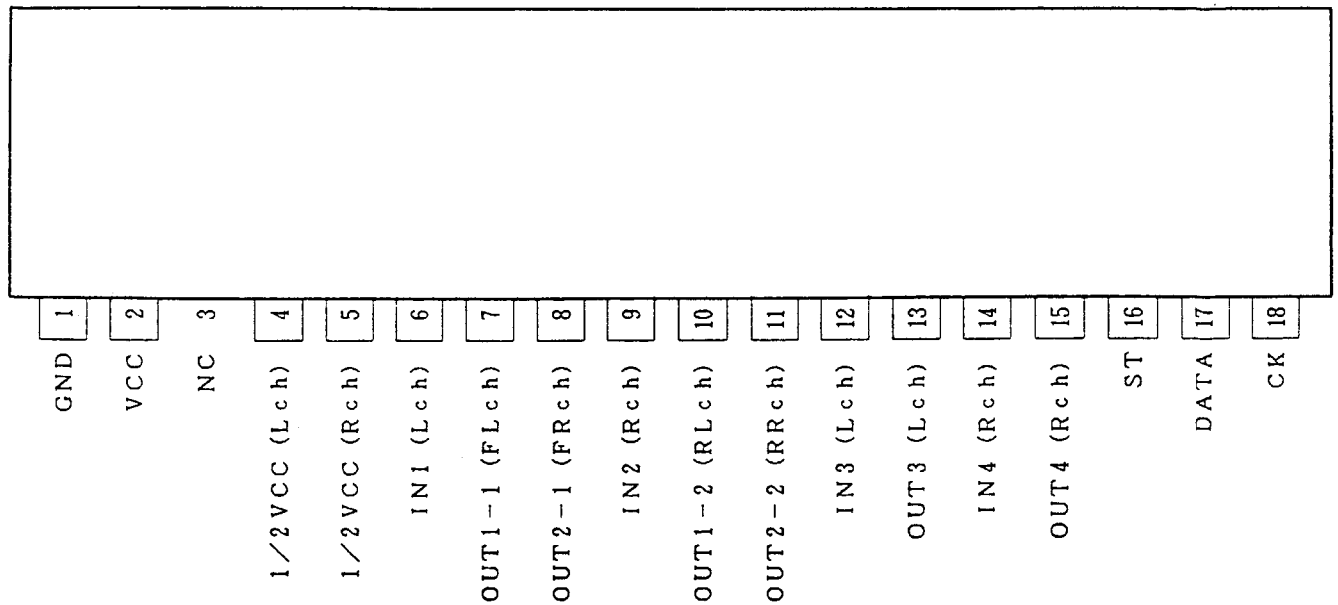
IC501 : KHA142



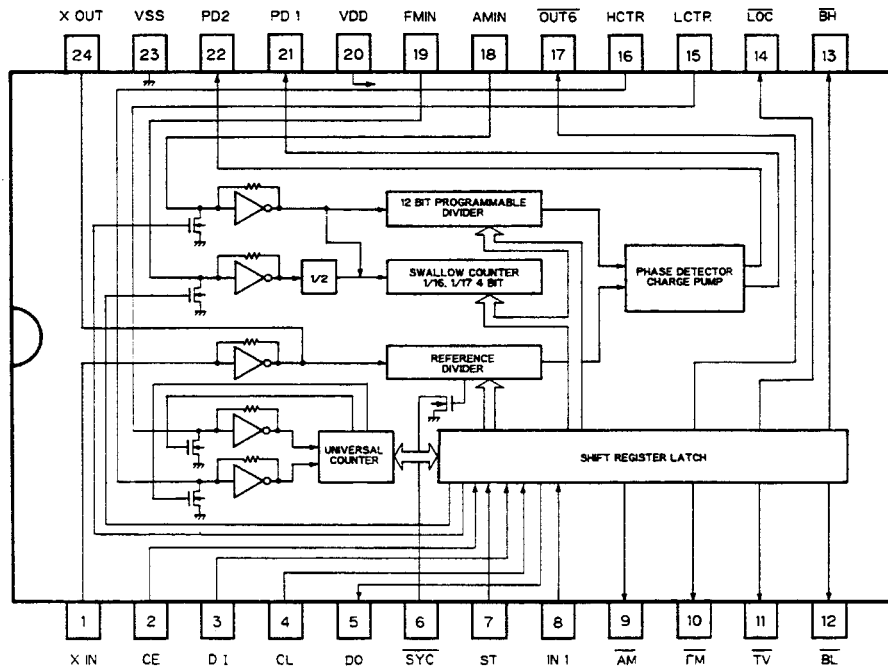
IC502: CWW1091



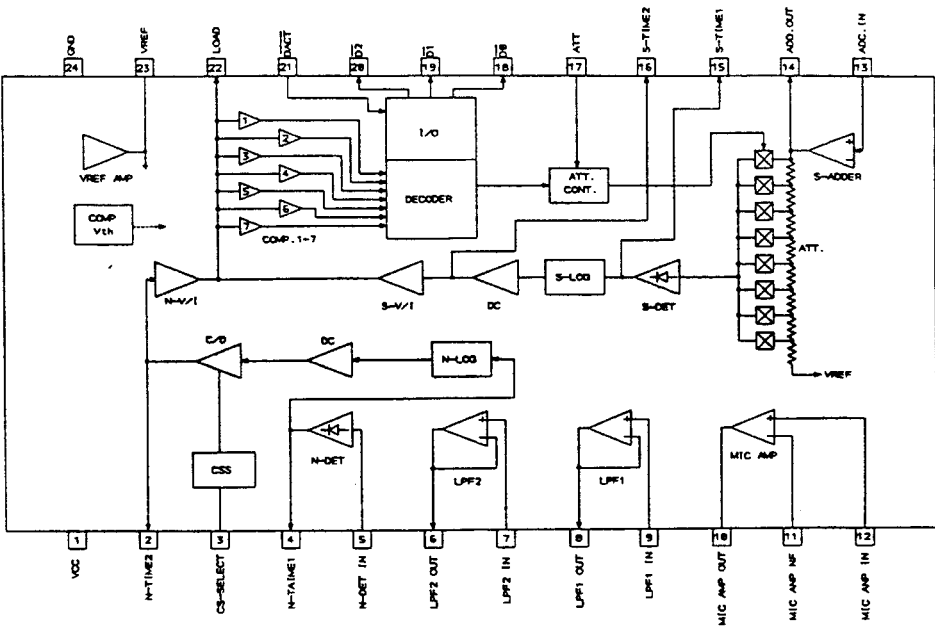
IC451:KHA159A



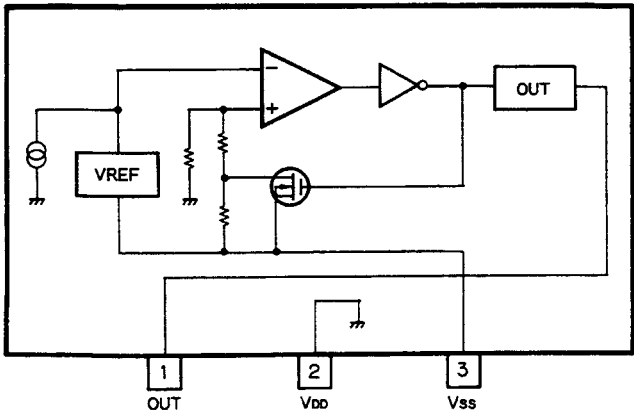
IC503:LC7218



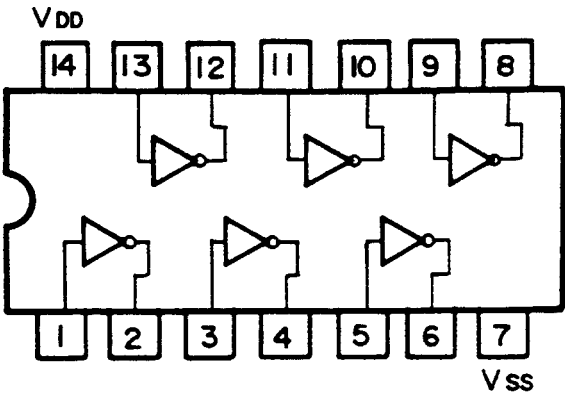
IC551 : PM2002



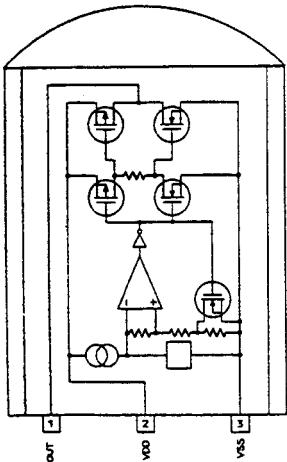
IC702 : S-8053ANO



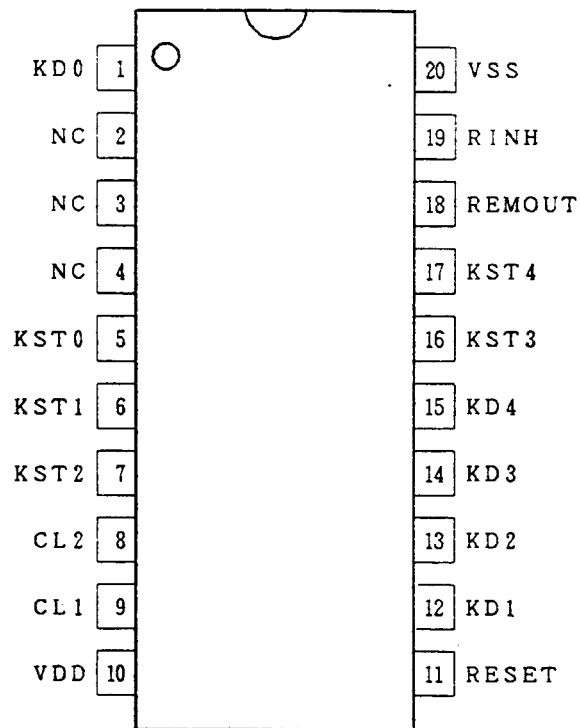
IC504 : TC4069UBP



IC901 : S-80740AH



IC904: PD4189

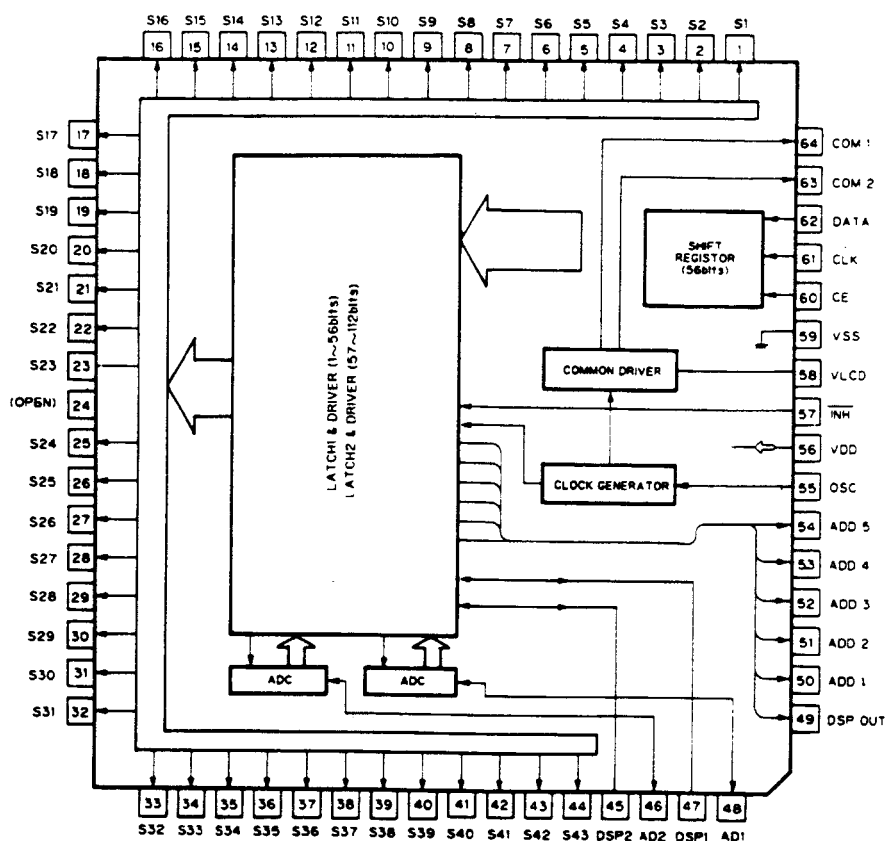


• Pin Functions (PD4189)

Pin No.	Pin Name	I/O	Output Format	Function and Operation
1	KDD	INPUT		Key return input
2—4	NC			
5—7	KST0—KST2	OUTPUT	NM	Key strobe output
8	CL2			System clock generator connector pin
9	CL1			System clock generator connector pin
10	VDD			
11	RESET	INPUT		Reset input
12—15	KD1—KD4	INPUT		Key return input
16, 17	KST3, KST4	OUTPUT	NM	Key strobe output
18	REMOUT	OUTPUT	NM	Remote controller data output
19	RINH	OUTPUT	NM	Remote controller OFF output when key data is outputed
20	VSS			GND

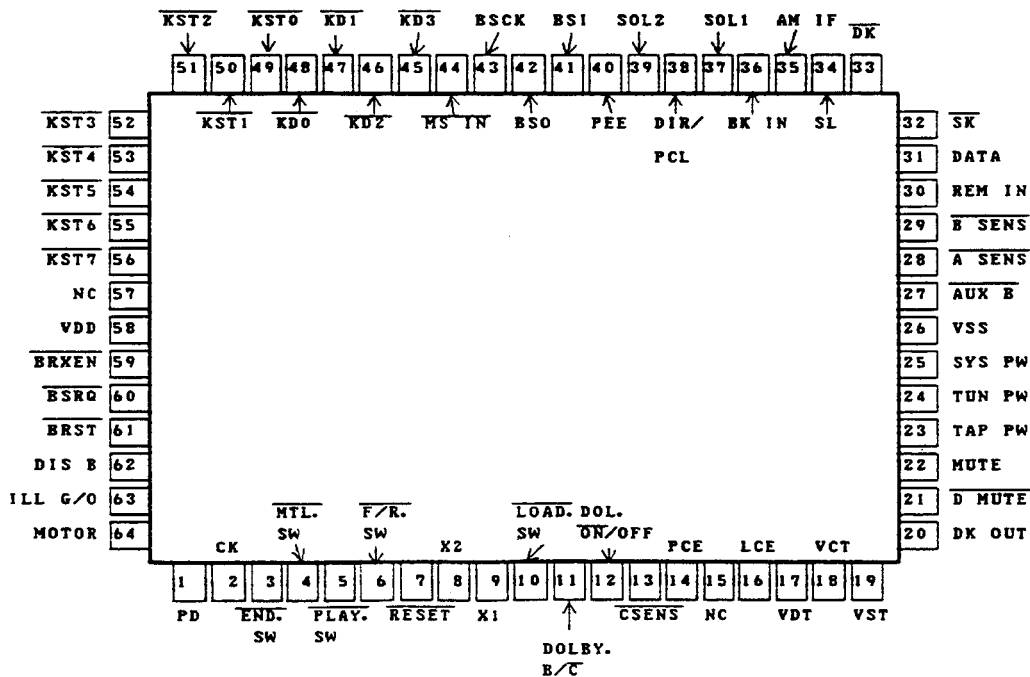
Output Format	Meaning
NM	Neutral resistivity N channel open drain

IC903: LC7582P

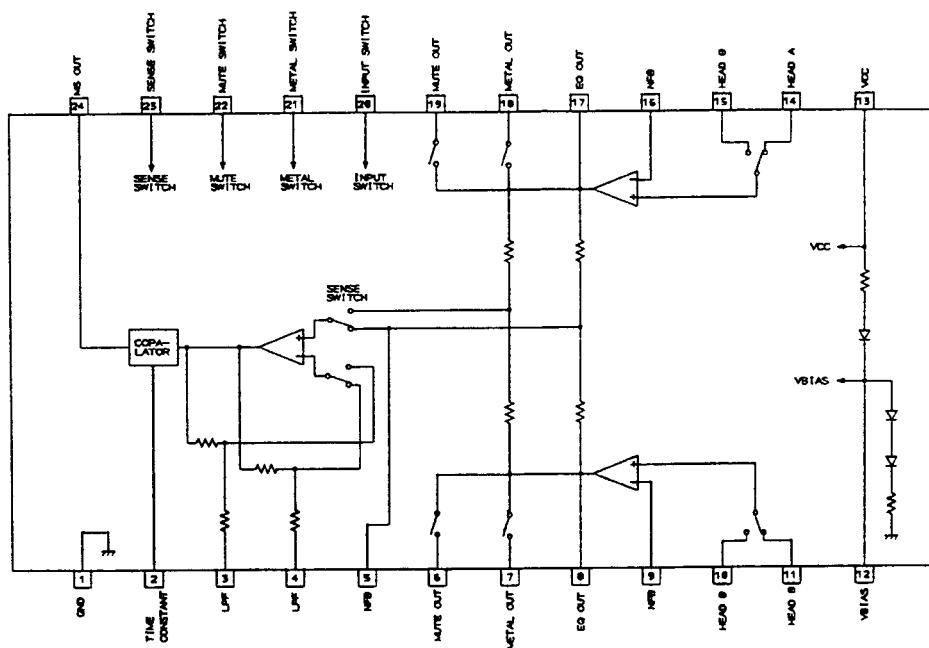


IC701: *PD4188

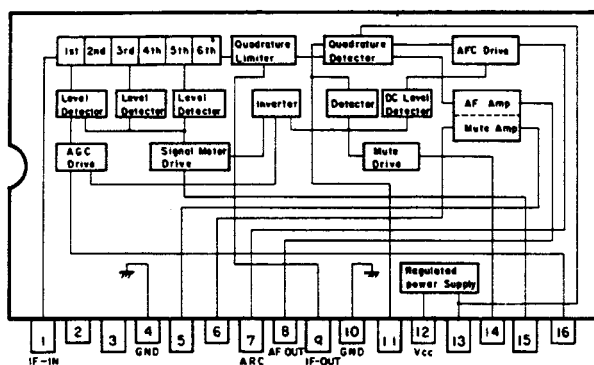
IC's marked by *are MOS type.
Be careful in handling them because they are very liable to be damaged by electrostatic induction.



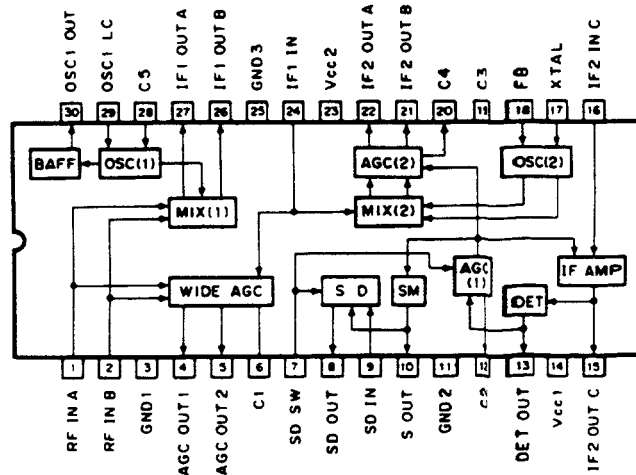
IC1: BA3430FS



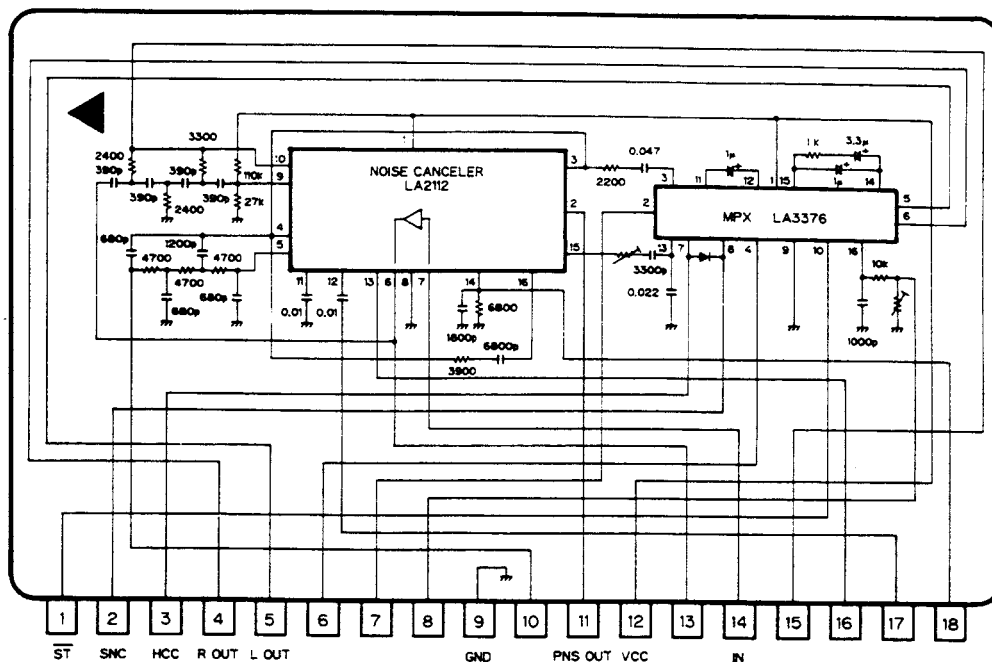
IC51: LA1140B



IC201: PA4010

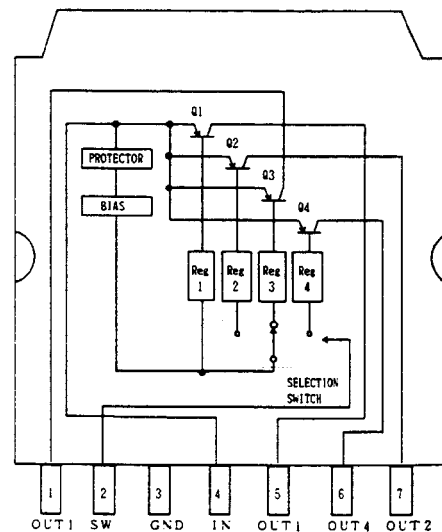
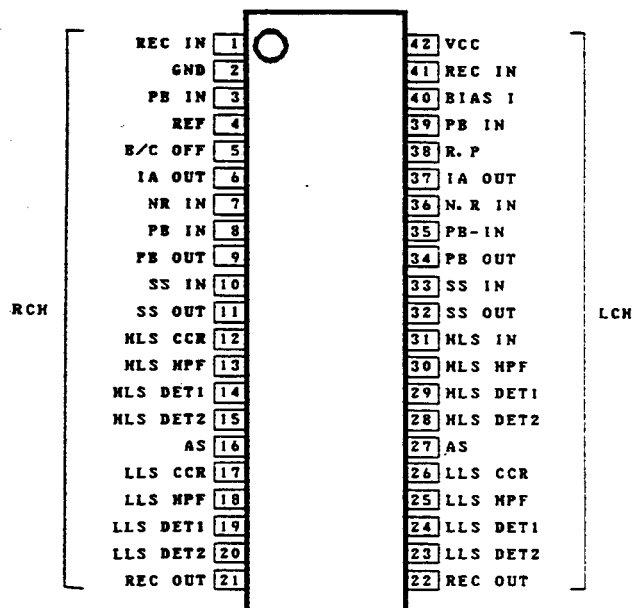


IC101:KHA146



IC301:HA12088ANT

IC703:TA8214K



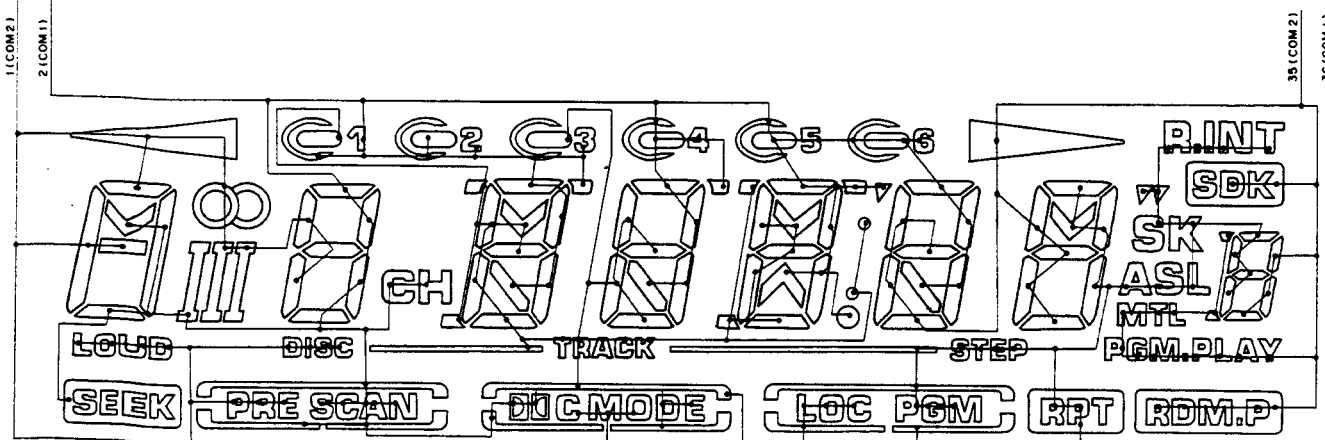
• Pin Functions (PD4188)

Pin No.	Pin Name	I/O	Output Format	Function and Operation
1	PD	Output	C	LCD driver IC and PLL IC data line
2	CK	Output	C	LCD driver IC and PLL IC clock line
3	END. SW	Input		Deck END sensor input
4	MTL. SW	Input		Deck METAL (70 μ S) sensor input
5	PLAY. SW	Input		Deck head position (PLAY) sensor input
6	F/R. SW	Input		Deck FWD/REV sensor input
7	RESET	Input		Reset input
8	X2			Crystal oscillating element connection pin
9	X1			Crystal oscillating element connection pin
10	LOAD. SW	Input		Deck LOAD/EJECT sensor input
11	DOLBY. B/C	Output	C	Dolby NR B/C selector output
12	DOL. ON/OFF	Output	C	Dolby NR ON/OFF selector output
13	CSENSE	Input		Front panel OPEN/CLOSE sensor input
14	PCE	Output	C	Chip enable output for PLL IC (IC503:LC7218)
15	NC			Not used
16	LCE	Output	C	Chip enable output for LCD driver IC
17	VDT	Output	C	Data output for electronic volume IC (IC451:KHA159A)
18	VCK	Output	C	Clock output for electronic volume IC (IC451:KHA159A)
19	VST	Output	C	Strobe output for electronic volume IC (IC451:KHA159A)
20	DK OUT	Output	C	Tuner mute output
21	D MUTE	Output	C	Deck mute output
22	MUTE	Output	C	System mute output
23	TAP PW	Output	C	Not used
24	TUN PW	Output	C	Tuner power supply control
25	SYS PW	Output	C	System (power amp) power supply control
26	VSS			GND
27	AUXB	Input		AUX B sensor input
28	ASENSE	Input		ACC power supply sensor input
29	BSENS	Input		BACK UP power supply sensor input
30	REMIN	Input		Remote control pulse input
31	DATA	Input		Data input for PLL IC (IC503:LC7218)
32	SK	Input		SK signal input
33	DK	Input		DK signal input
34	SL	Input		Input level sensor input
35	AM IF	Input		AM IF count input
36	BK IN	Input		BK signal input
37	SOL1	Output	C	Output for deck solenoid 1 (head position)
38	DIR/PCL	Output	C	Deck FWD/REV head selector output
39	SOL2	Output	C	Output for deck solenoid 2 (DIR selector and EJECT)
40	PEE	Output	C	Beep tone output

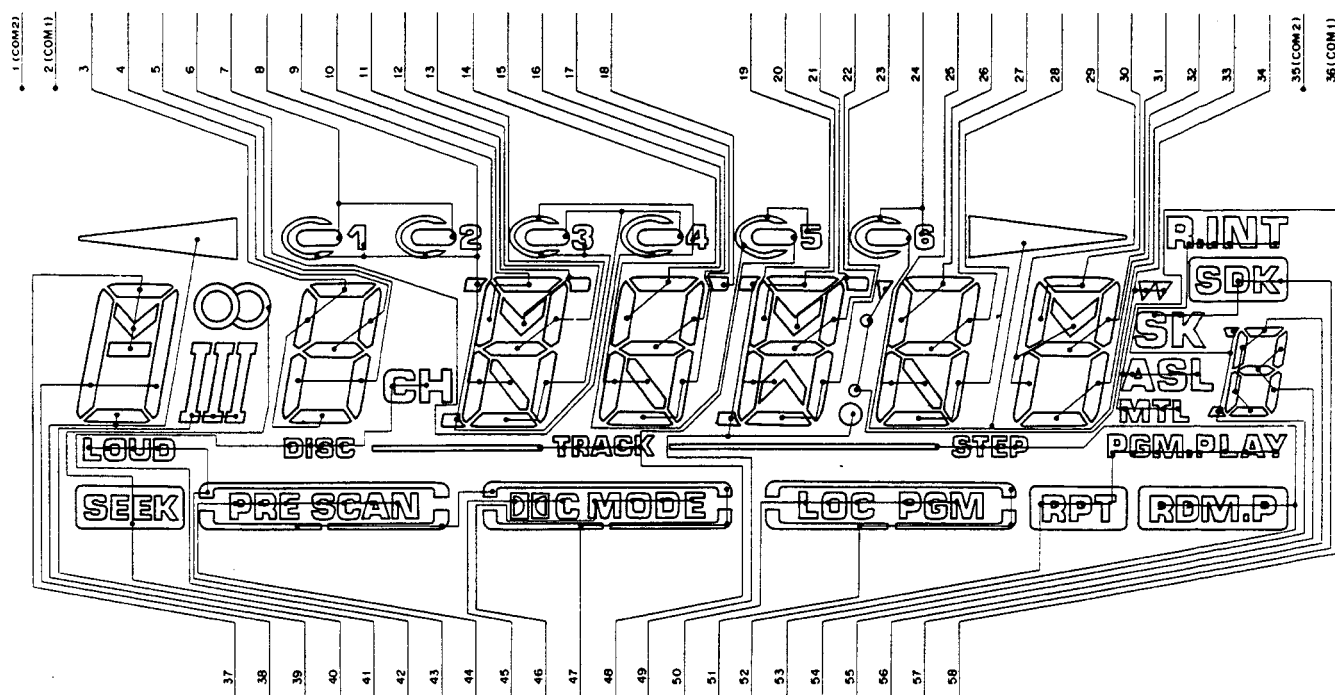
Pin No.	Pin Name	I/O	Output Format	Function and Operation
41	BS I	Input		Bus serial data input
42	BS O	Output	C	Bus serial data output
43	BSCK	Input/ Output	C	Bus serial clock input/output
44	MS IN	Input		Music signal input
45~48	KD3~KD0	Input		Key return input
49	KST0	Output	NM	Model sense strobe output
50	KST1	Output	NM	Model sense strobe output
51	KST2	Output	NM	ASL strobe output
52	KST3	Output	NM	Key strobe output
53	KST4	Output	NM	ASL mode selector output 1
54	KST5	Output	NM	ASL mode selector output 2
55	KST6	Output	NM	Detaching and replacing front panel control
56	KST7	Output	NM	Strobe output for front panel open solenoid control
57	NC			
58	VDD			
59	BRXEN	Input/ Output	C	Bus reception enable line
60	BSRQ	Input		Data communications serial poll request
61	BRST	Output	C	Bus reset
62	DIS B	Output	C	AUX control output
63	ILL G/O	Output	C	Illumination green/amber selector output
64	MOTOR	Output	C	Deck main motor control output

Output Format	Meaning
C	CMOS Output
NM	Neutral resistivity N channel open drain

• LCD (CAW1042)
COMMON

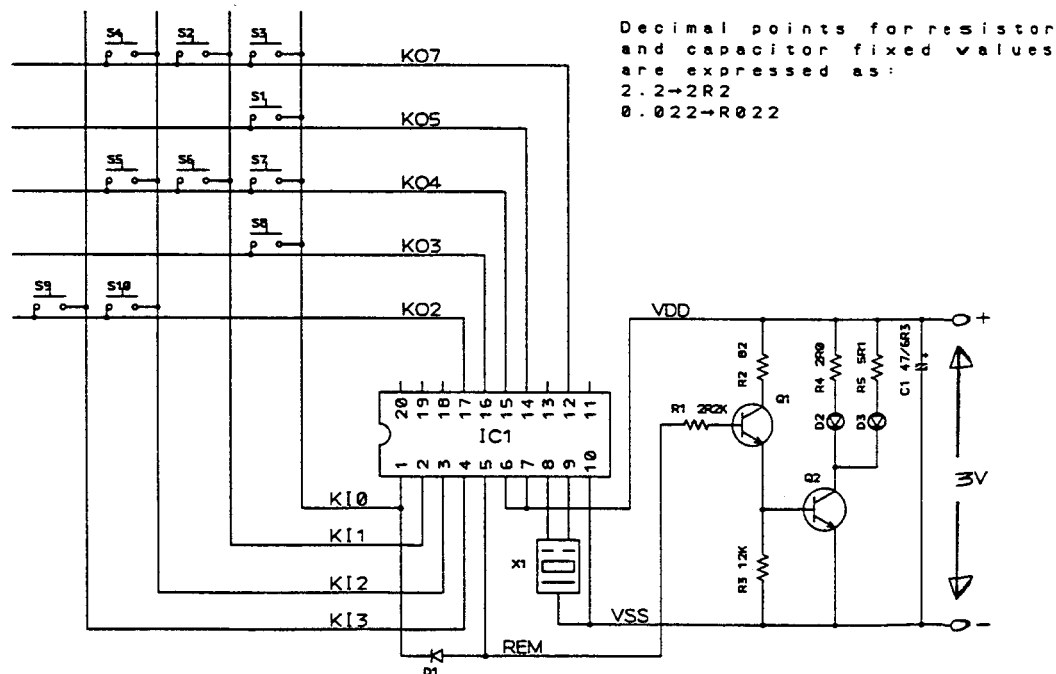


SEGMENT



• Remote Control Assy

S1: BSM
 S2: TAPE
 S3: TUNER
 S4: CD
 S5: BAND
 S6: - SOURCE
 S7: + SOURCE
 S8: ATT
 S9: - VOLUME
 S10: + VOLUME



Decimal points for resistor
 and capacitor fixed values
 are expressed as:
 2.2 → 2R2
 0.022 → R022

$\frac{EF}{EF} B$

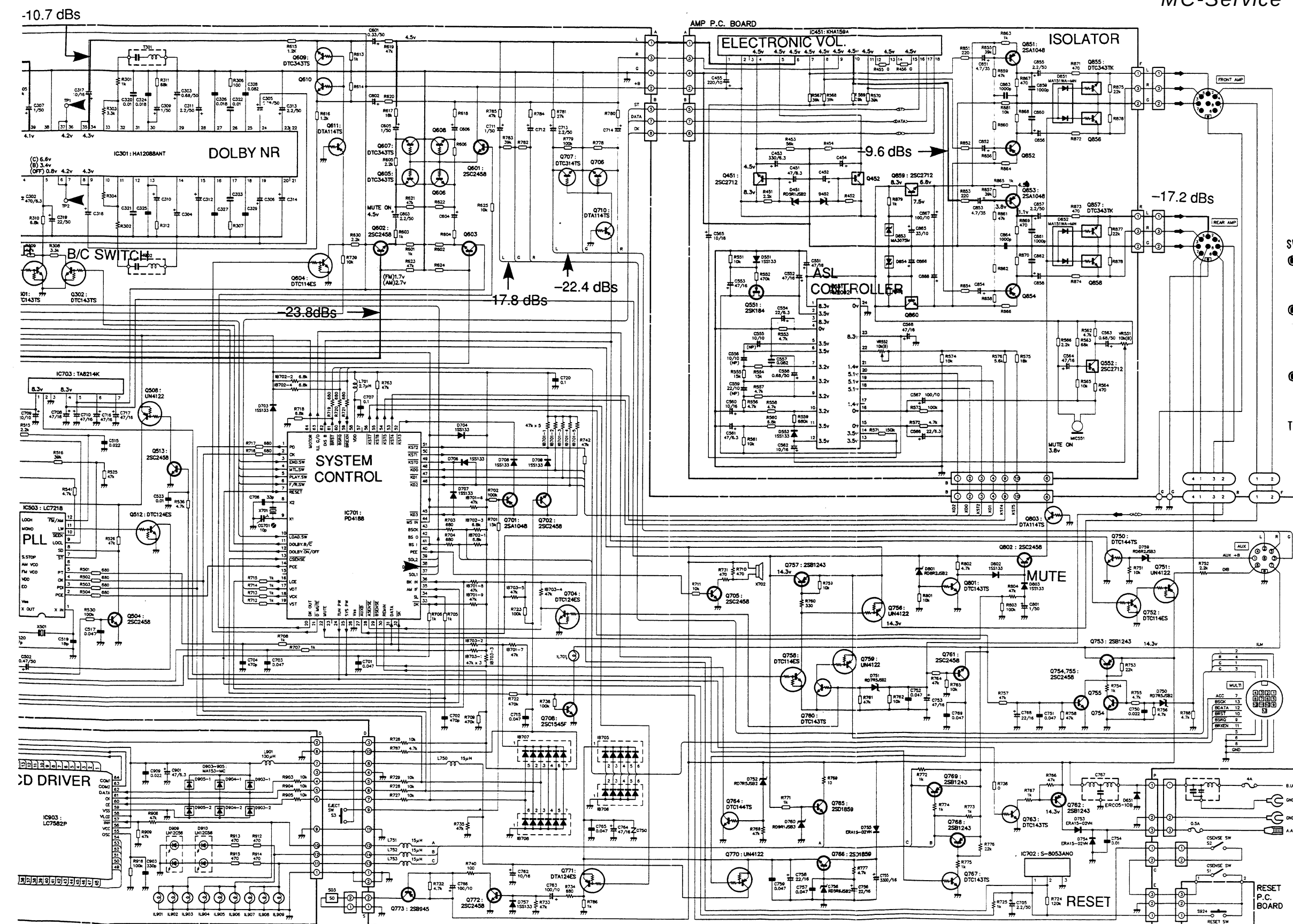
C

D

Consists of

- Display P.C. Board
- Reset P.C. Board

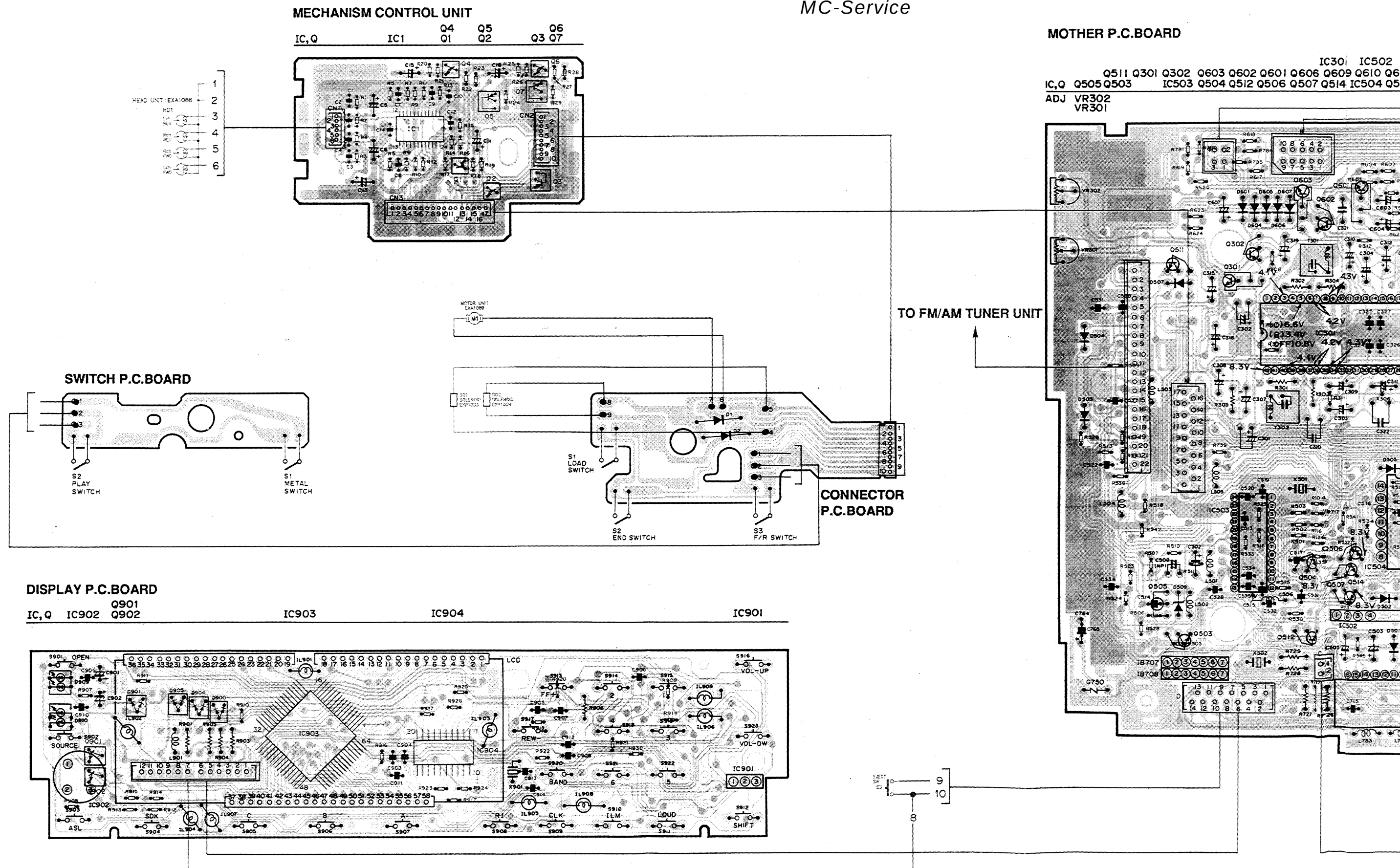
Fig. 22



1 | 2 | 3 | 4 | 5 | 6

MC-Service

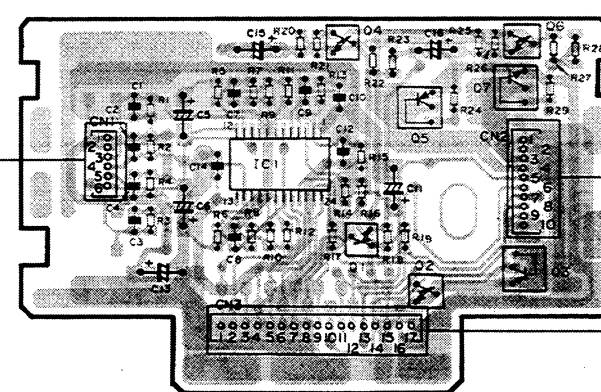
MOTHER P.C.BOARD



12. CONNECTION DIAGRAM (KEX-M800/EW)

MECHANISM CONTROL UNIT

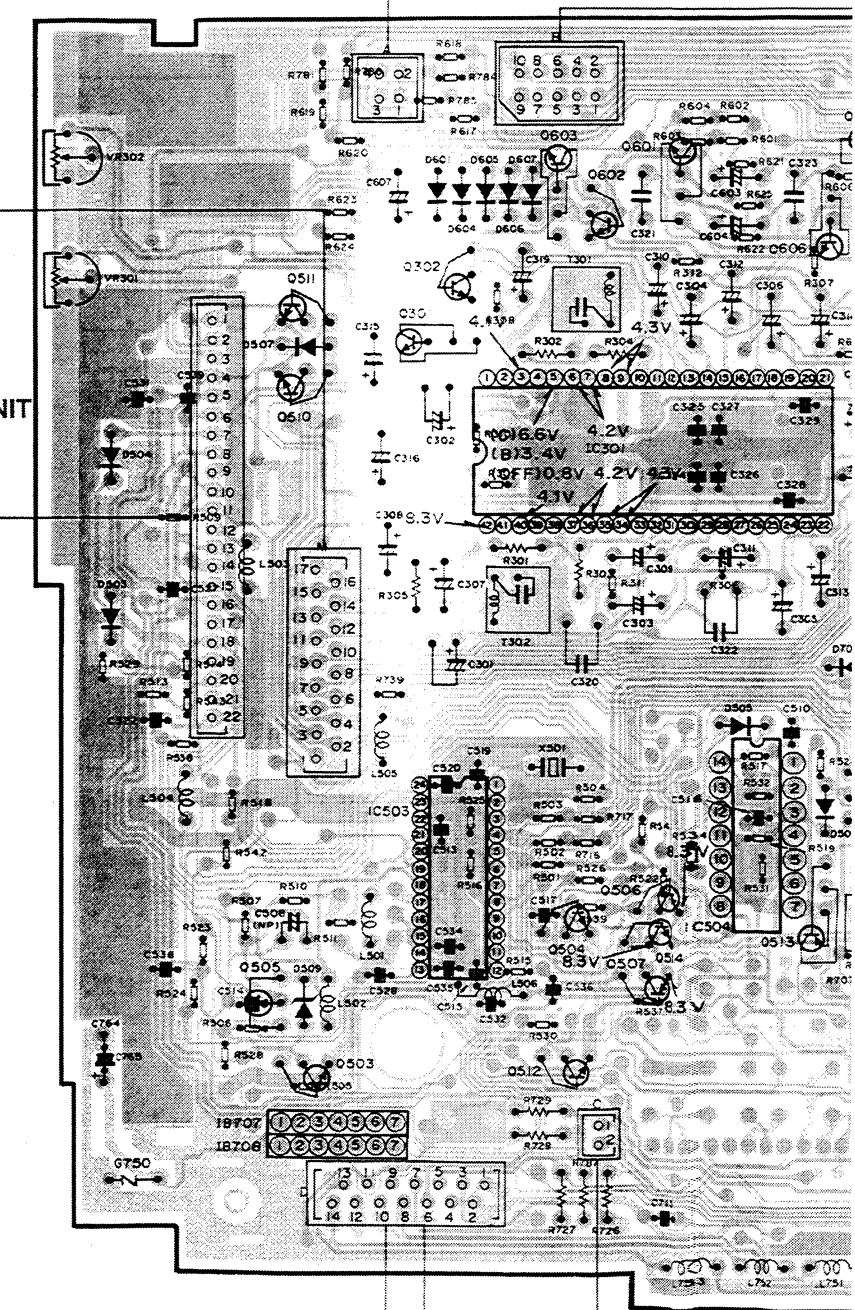
IC,Q IC1 Q4 Q5 Q6
Q1 Q2 Q3 Q7



MC-Service

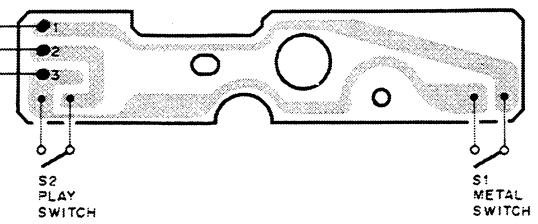
MOTHER P.C.BOARD

IC301
Q510 Q511 Q301 Q302 Q603 Q602 Q601 Q606 Q609 Q610 Q611 Q604
IC,Q Q505 Q503 IC503 Q504 Q512 Q506 Q507 Q514 IC504 Q513 Q
ADJ VR302
VR301



TO FM/AM TUNER UNIT

SWITCH P.C.BOARD



S1
LOAD
SWITCH

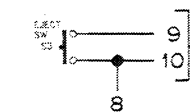
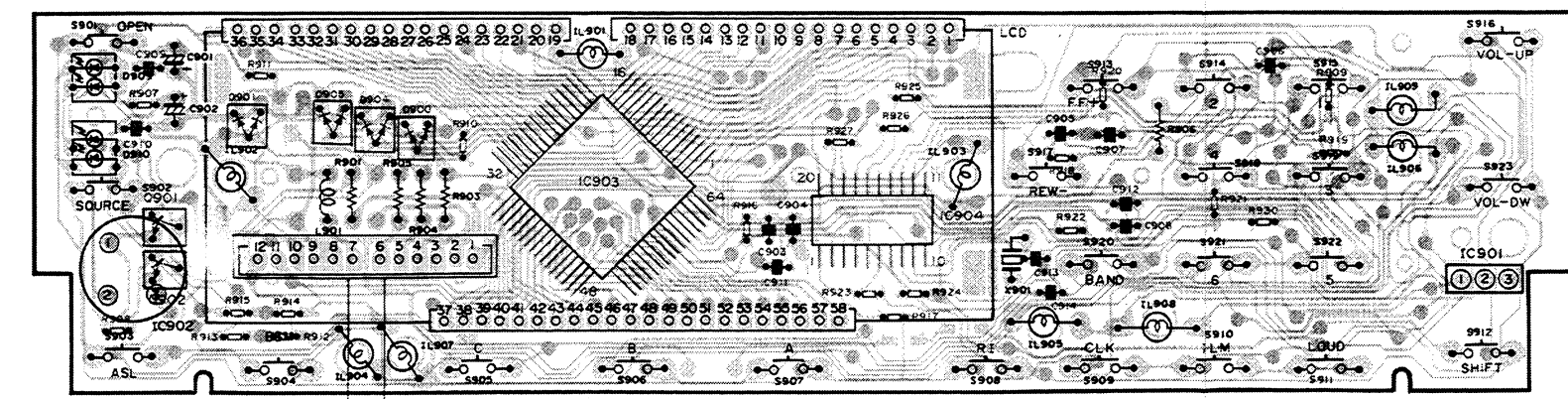
S2
END
SWITCH

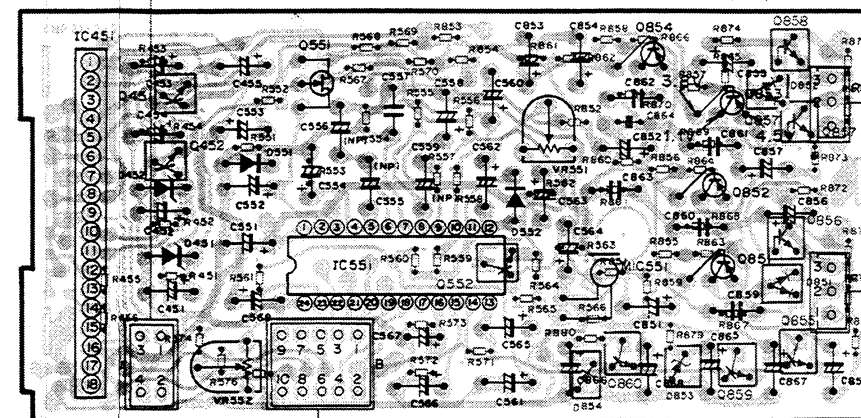
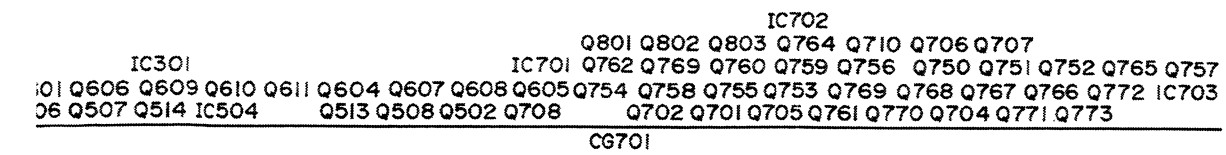
S3
F/R
SWITCH

CONNECTOR P.C.BOARD

DISPLAY P.C.BOARD

IC,Q IC902 Q901
Q902 IC903 IC904 IC901





	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
IC451	0	8.3		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5		4.5									
IC551	8.3	3.5	8.3	0	3.5	3.5	3.2	3.2	3.2	3.2	3.5	3.5	3.5	3.5	0	0	1.4	5.1	5.1	5.1	1.4		6.3	0

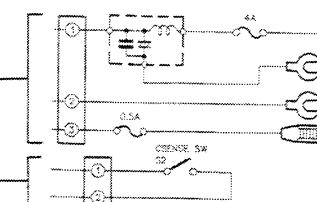
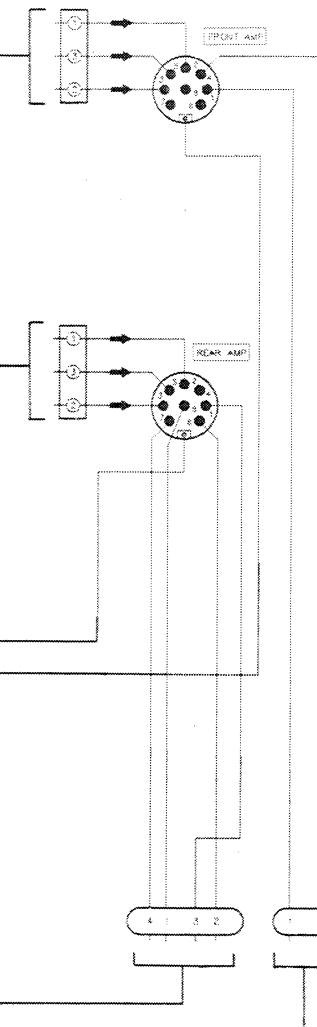
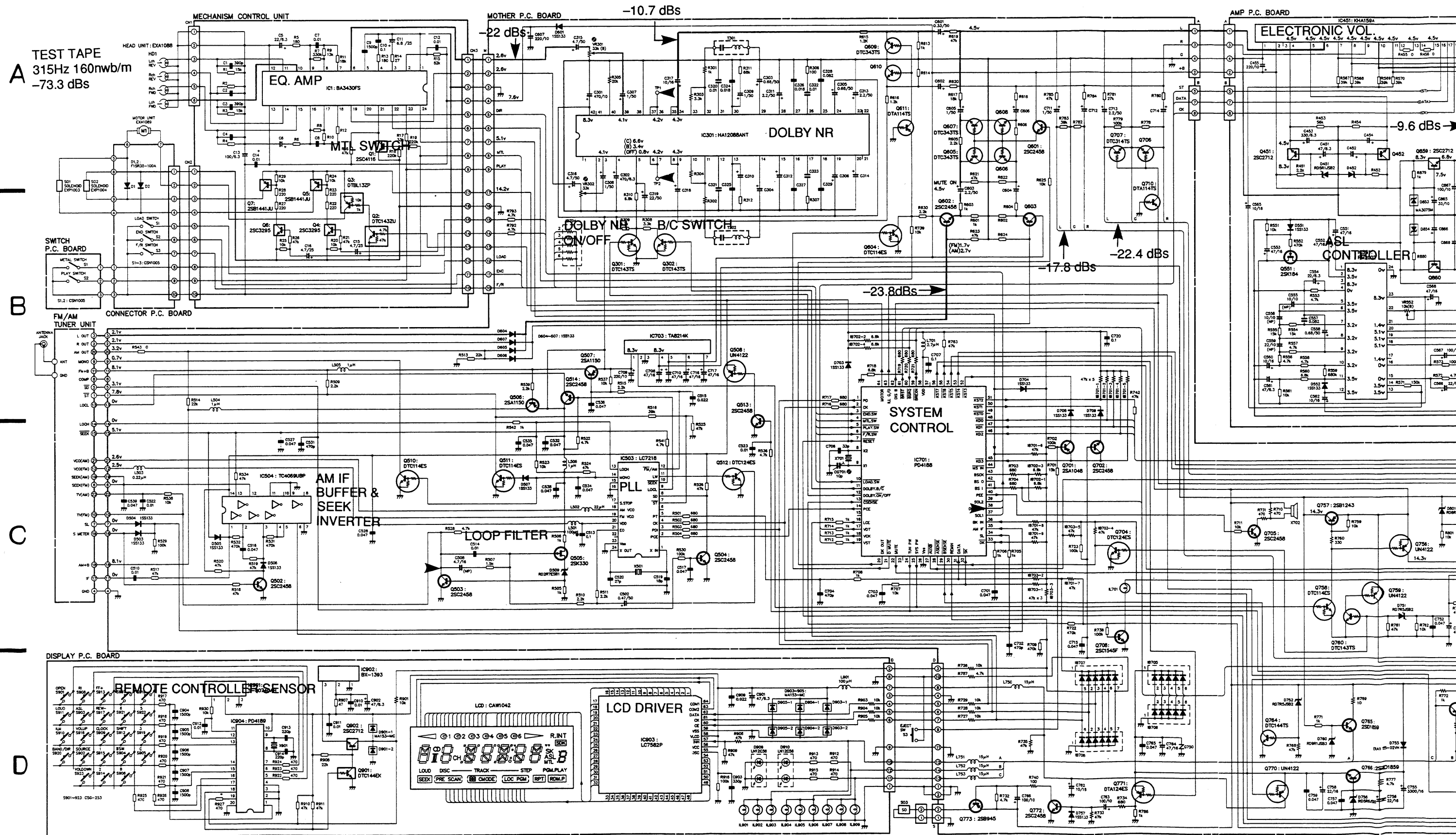


Fig. 24

13. SCHEMATIC CIRCUIT DIAGRAM (KEX-M800/EW)

MC-Service

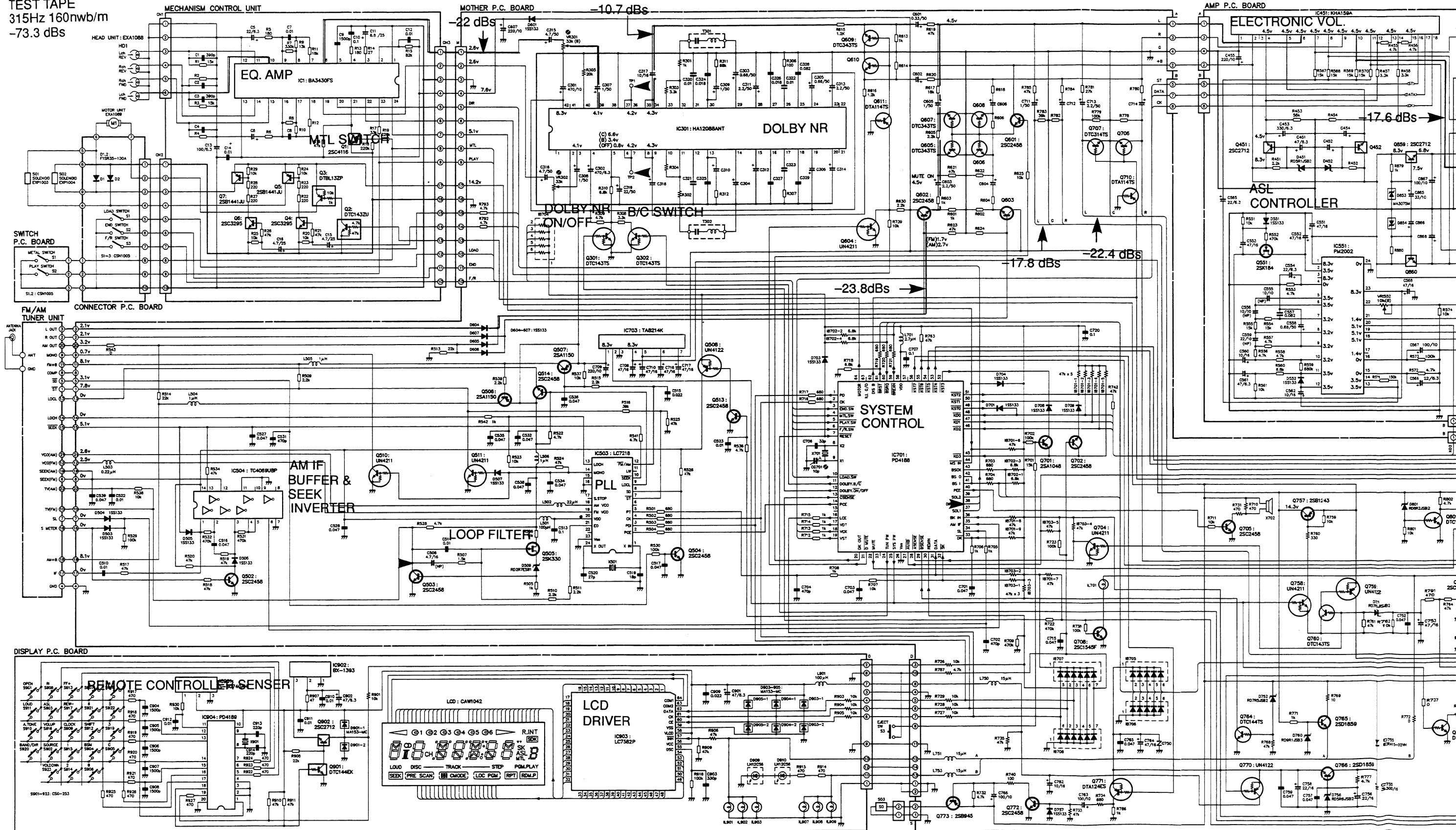


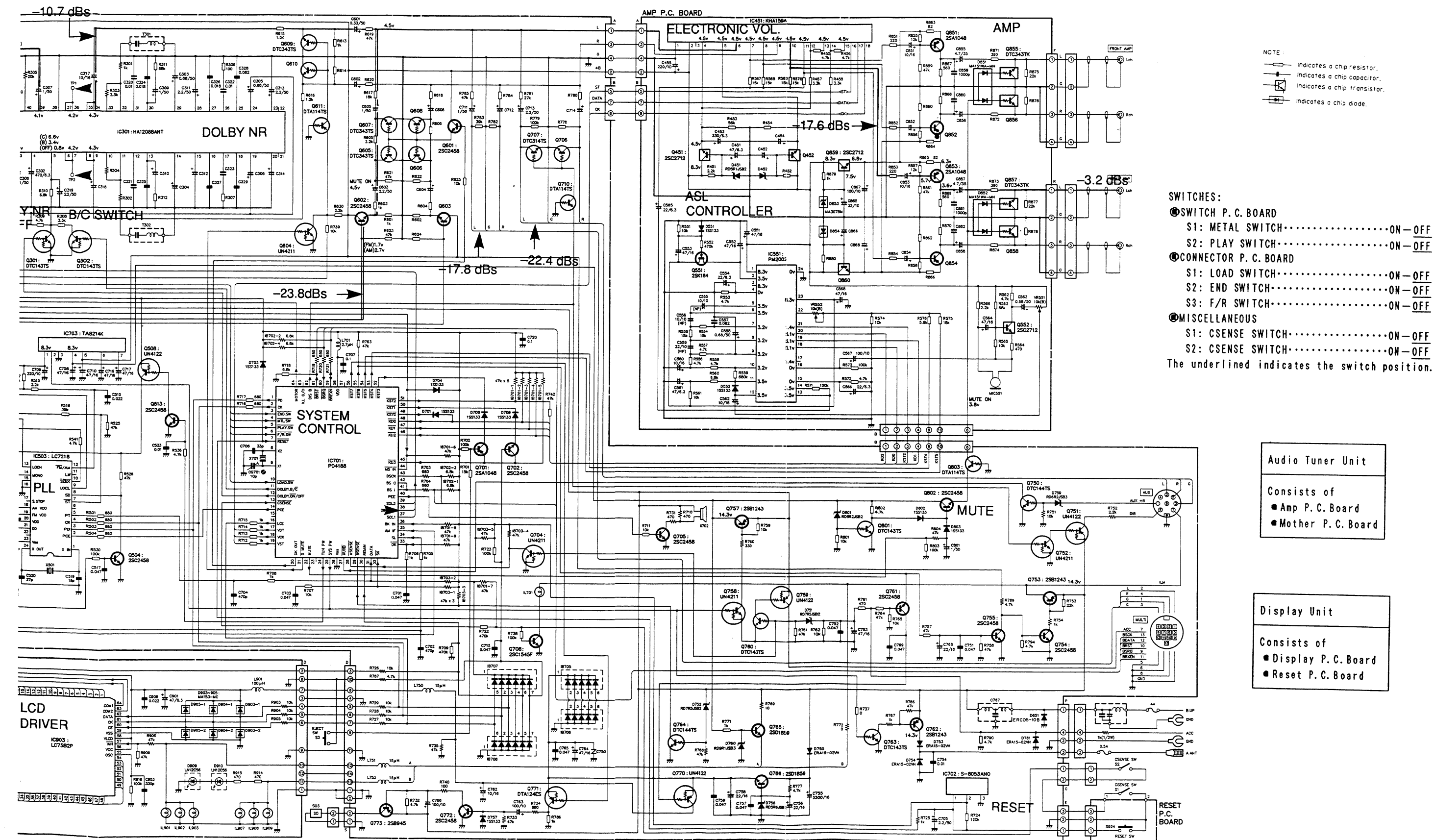


14. SCHEMATIC CIRCUIT DIAGRAM (KEX-M800/ES)

MC-Service

TEST TAPE
315Hz 160nwb/m
-73.3 dBs





15. CONNECTION DIAGRAM (KEX-M800/ES)

MECHANISM CONTROL UNIT

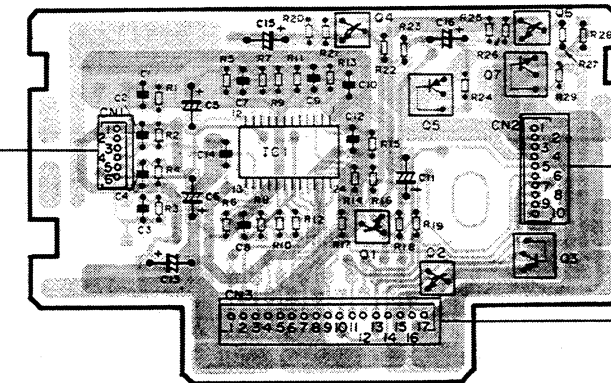
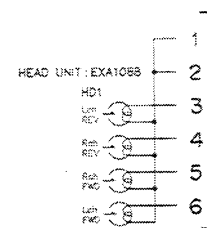
IC, Q IC1 Q4 Q5 Q6
Q1 Q2 Q3 Q7

MC-Service

MOTHER P.C.BOARD

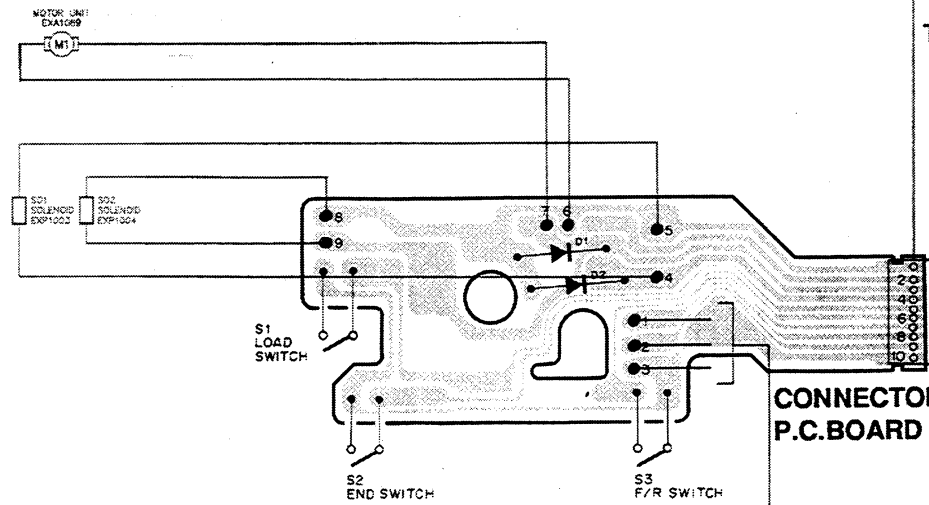
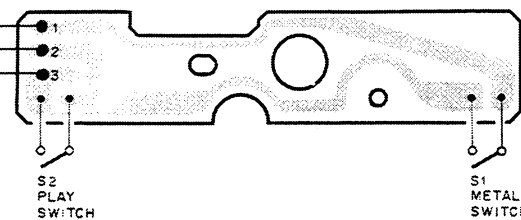
IC301
Q510 Q511 Q301 Q302 Q603 Q602 Q601 Q606 Q609 Q610 Q611
IC, Q Q505 Q503 IC503 Q504 Q506 Q507 Q514 IC504
ADJ VR302
VR301

A



B

SWITCH P.C.BOARD

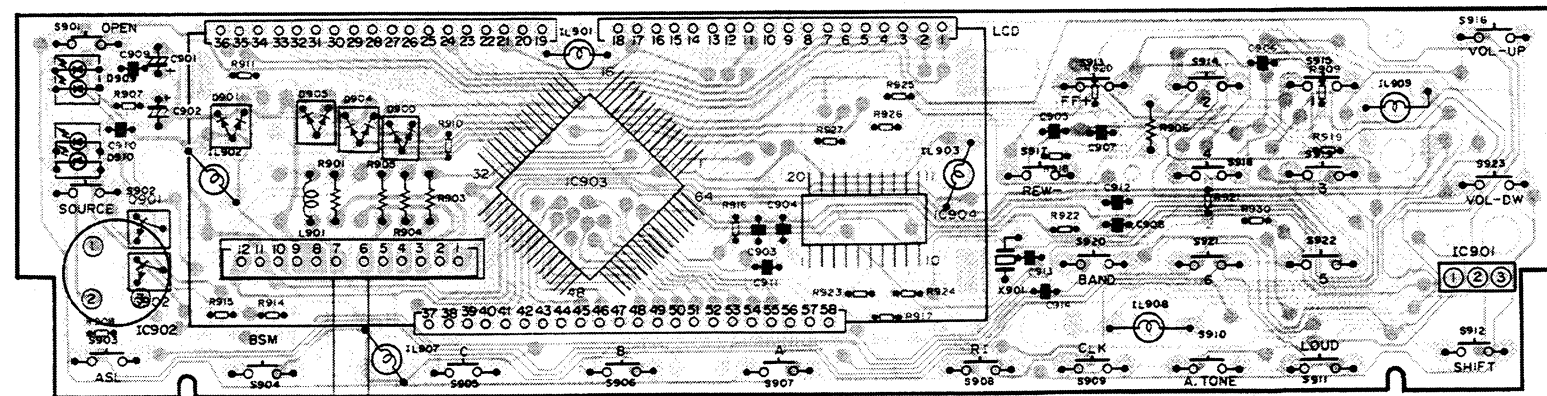


TO FM/AM TUNER UNIT

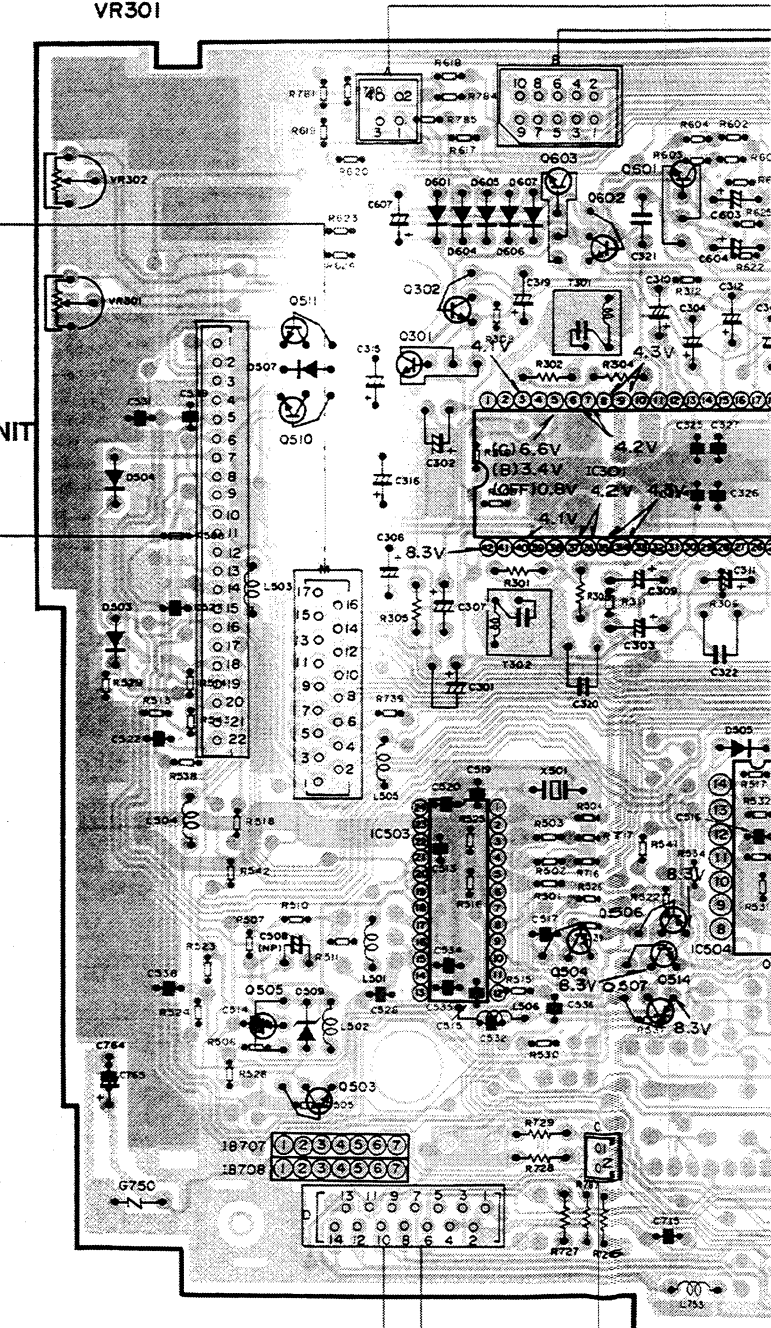
C

DISPLAY P.C.BOARD

Q901
IC, Q IC902 Q902 IC903 IC904 IC901



D



1

2

3

4

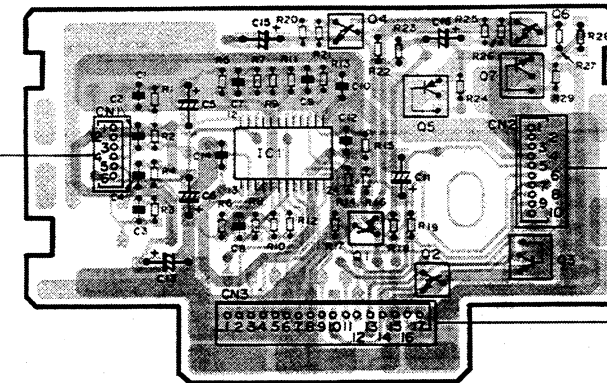
5

6

16. CONNECTION DIAGRAM (KEX-M800/UC)

MECHANISM CONTROL UNIT

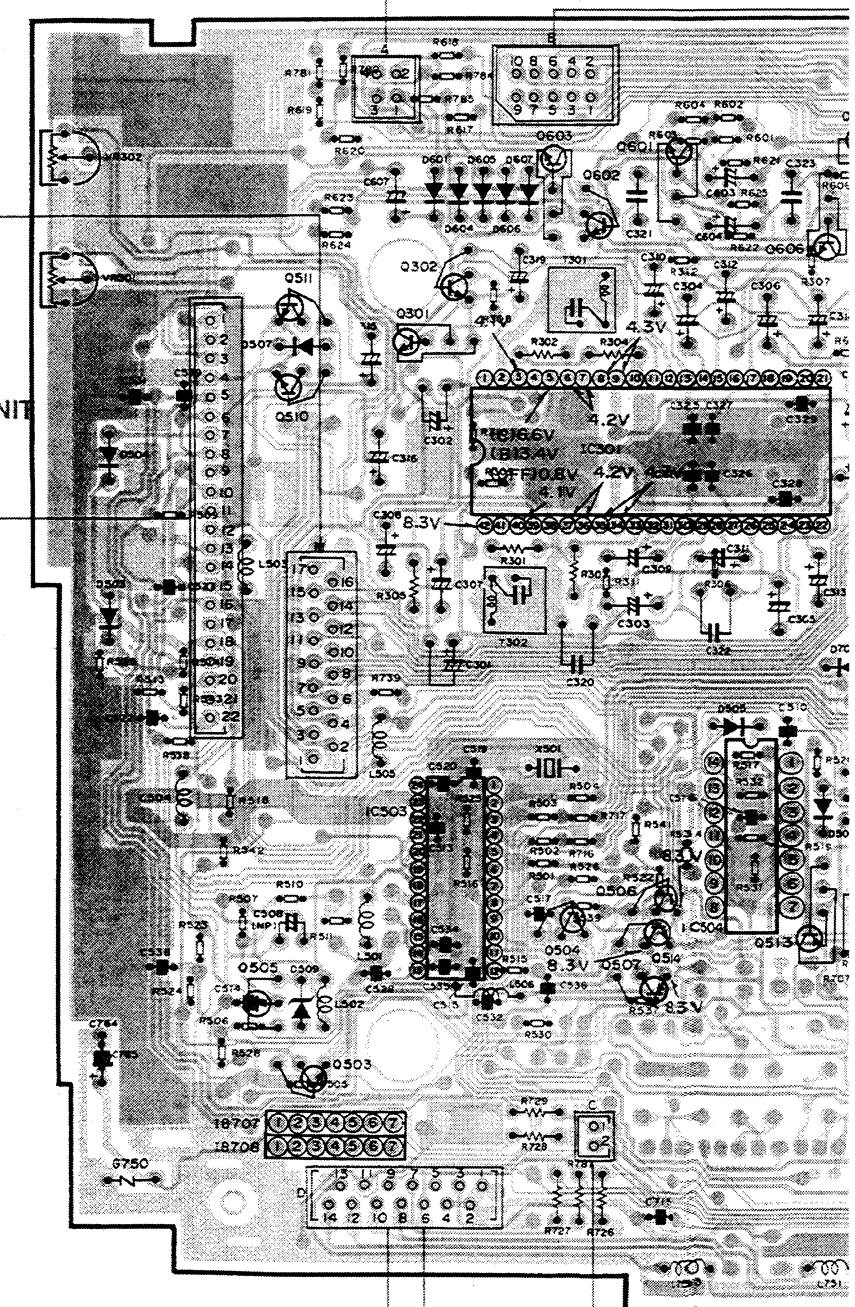
IC, Q IC1 Q4 Q5 Q6
Q1 Q2 Q3 Q7



MC-Service

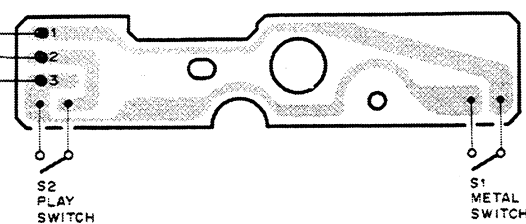
MOTHER P.C. BOARD

IC301
Q510 Q511 Q301 Q302 Q603 Q602 Q601 Q606 Q609 Q610 Q611 Q604
IC, Q Q505 Q503 IC503 Q504 Q506 Q507 Q514 IC504 Q513 Q
ADJ VR302
VR301

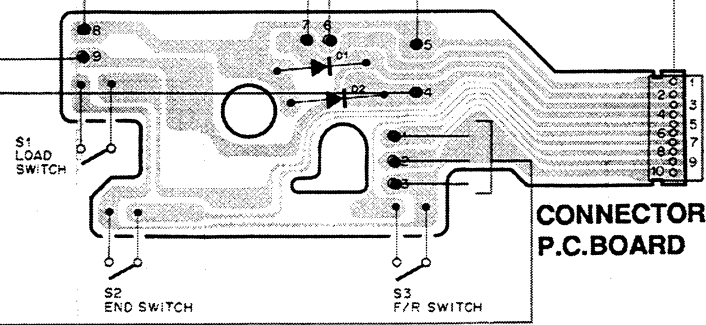


TO FM/AM TUNER UNIT

SWITCH P.C. BOARD

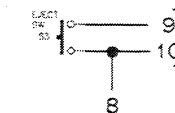
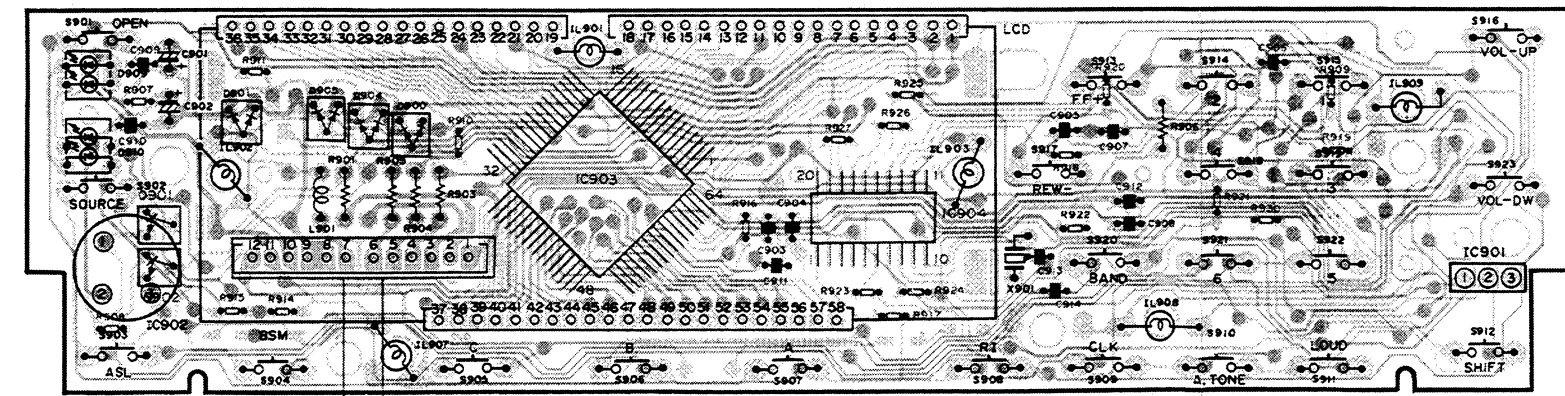


CONNECTOR P.C. BOARD



DISPLAY P.C. BOARD

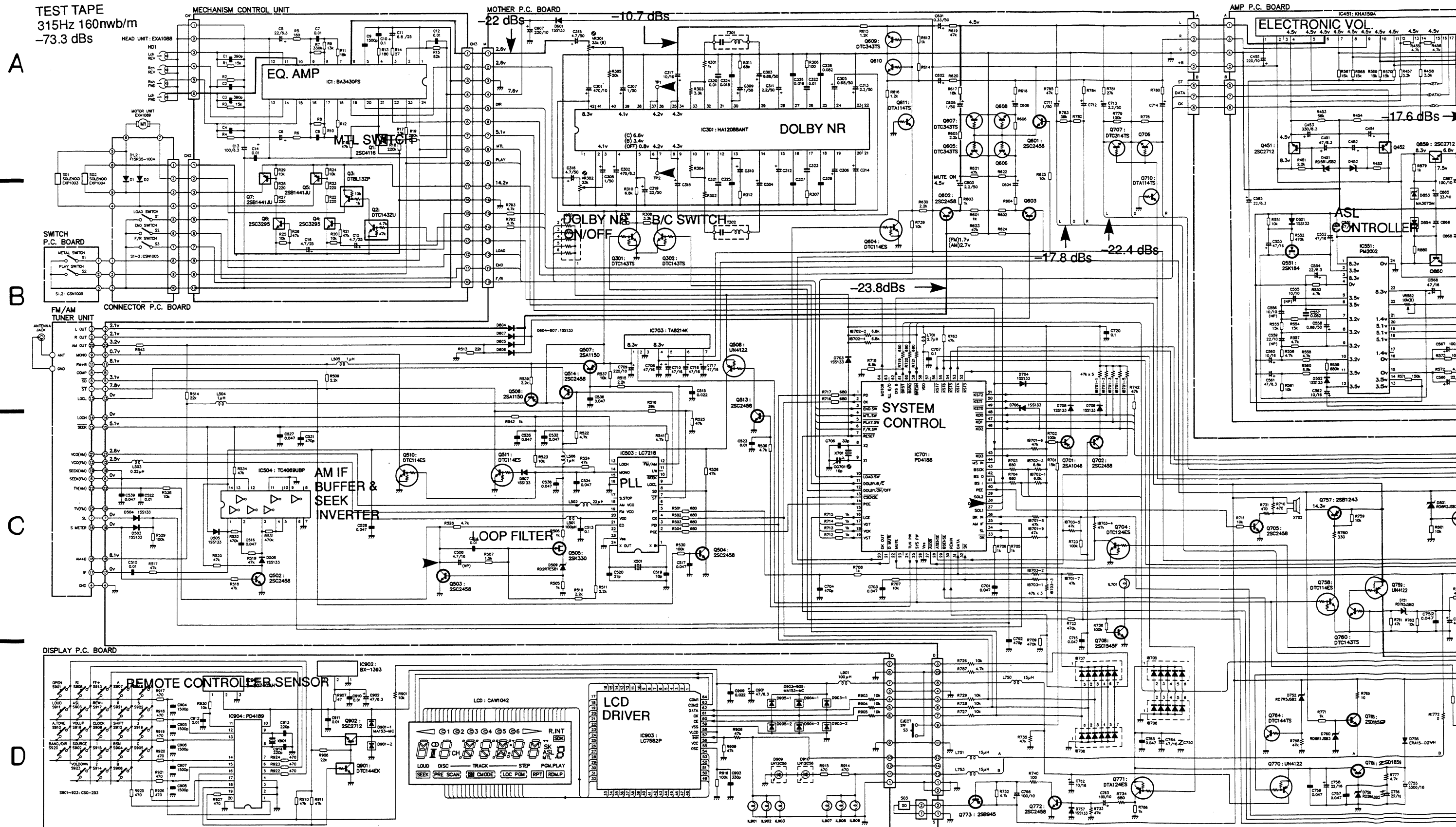
Q901
IC, Q IC902 Q902 IC903 IC904 IC901

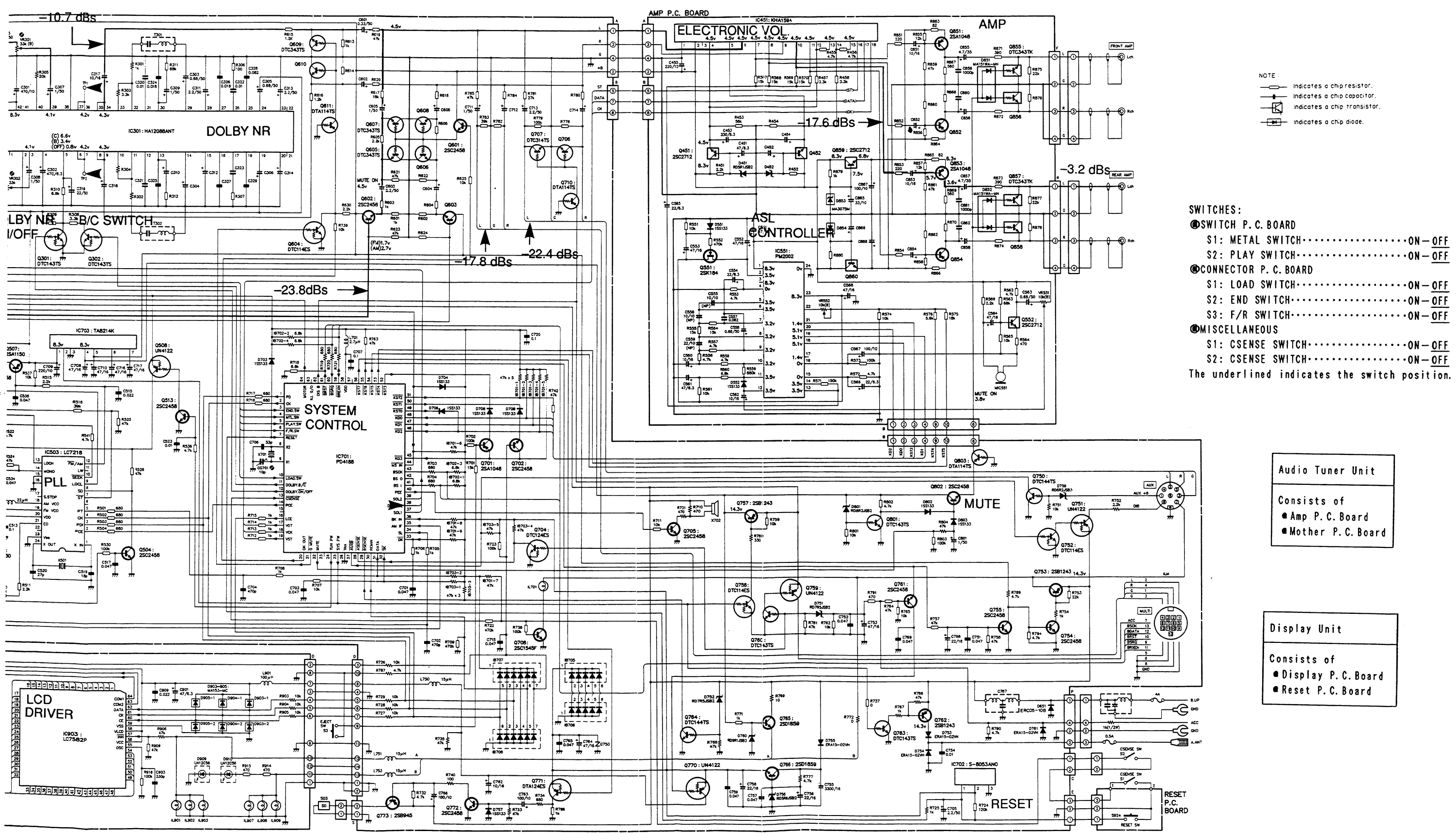


17. SCHEMATIC CIRCUIT DIAGRAM (KEX-M800/UC)

MC-Service

TEST TAPE
315Hz 160nwb/m
-73.3 dBs





B

C

D

7

Consists of

- Display P.C. Board
- Reset P.C. Board

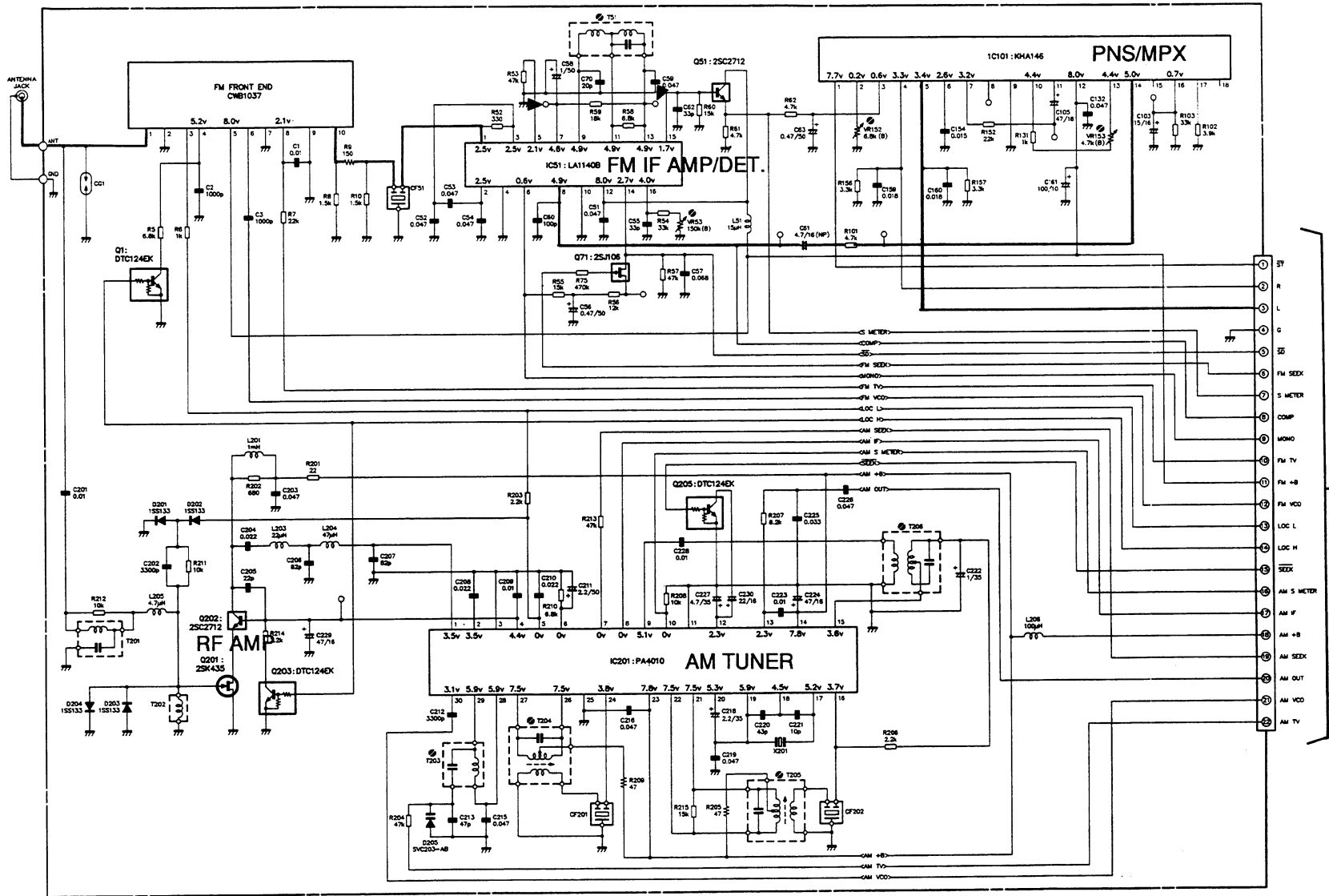
3 | 4 | 5 | 6 | 7 | 8 | 9

18. FM/AM TUNER UNIT

• KEX-M800SDK/WG, KEX-M800/EW

• KEX-M800/ES

MC-Service



TO MOTHER P.C. BOARD

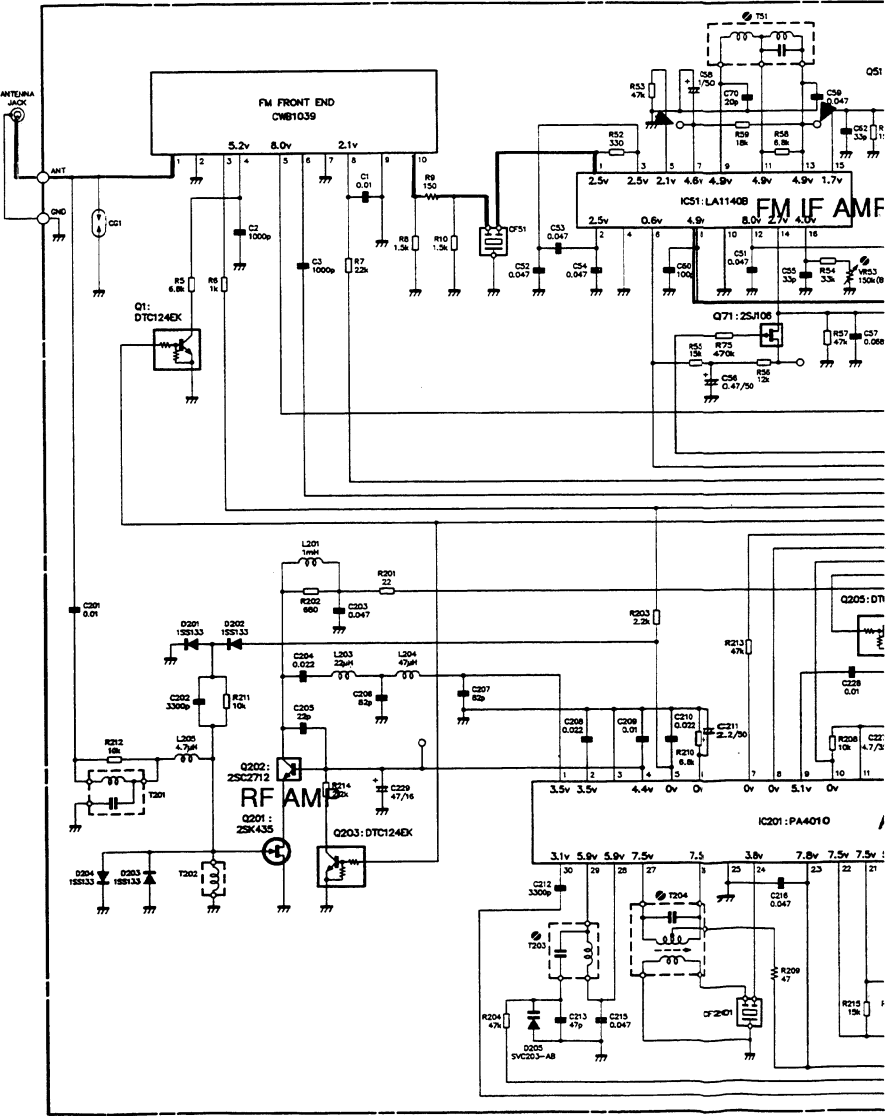
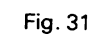


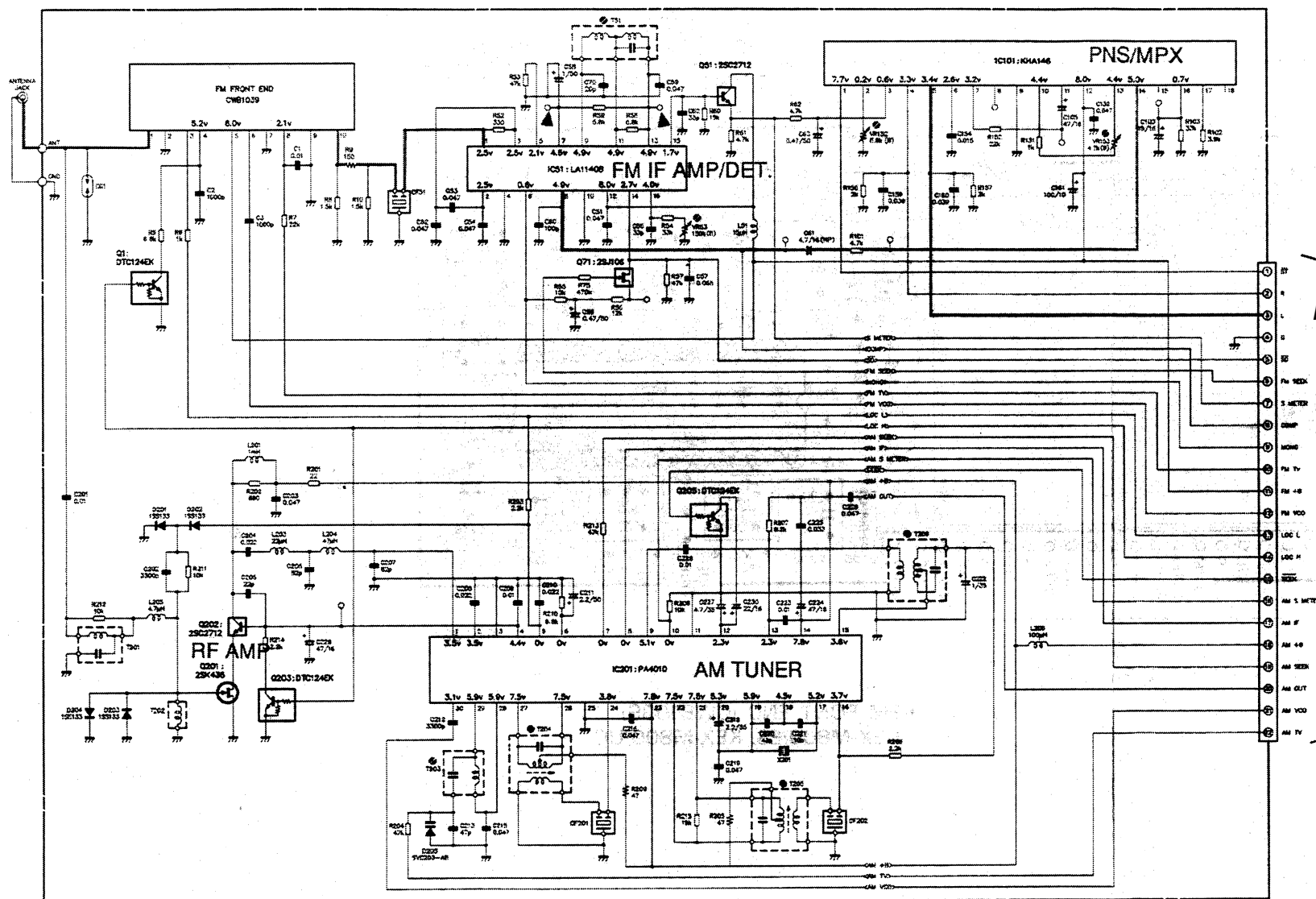
Fig. 30

MC-Service



• KEX-M800/UC

• KEX-M800SDK/WG, KEX-M800/EW,
KEX-M800/ES, KEX-M800/UC



MC-Service

TO MOTHER
P.C. BOARD

• FM FRONT END (CWB1037)
KEX-M800SDK/WG, KEX-M800/EW

NOTE
 R Chip Resistor
 C Chip Capacitor
 D Chip Diode
 Q Chip Transistor
 Decimal points for resistor
 and capacitor fixed values
 are expressed as
 3 2-222
 0 022-R022

Fig. 32

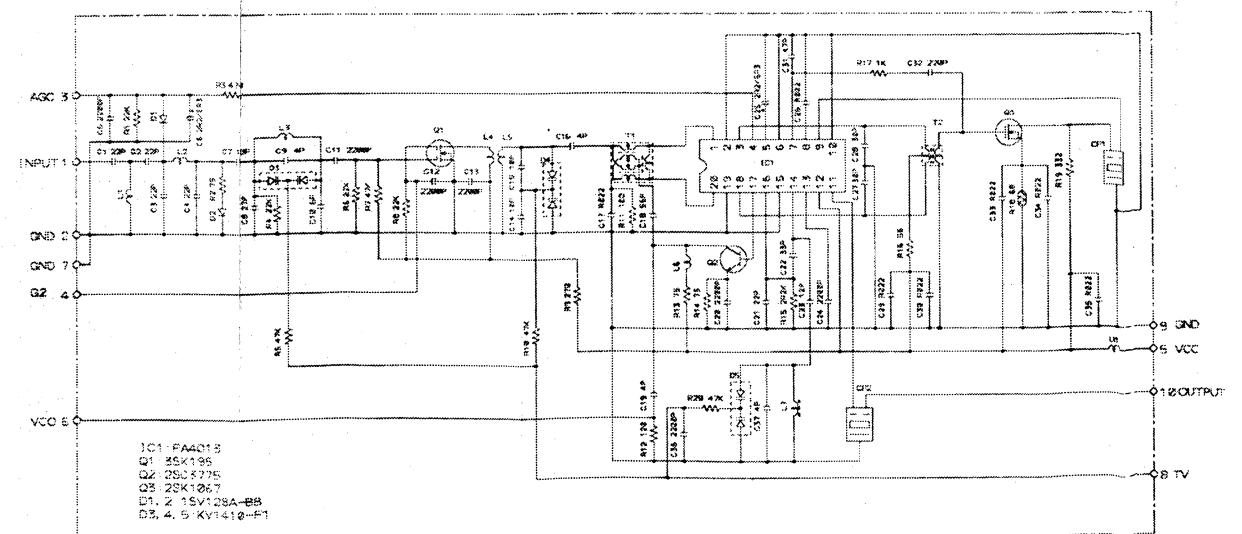
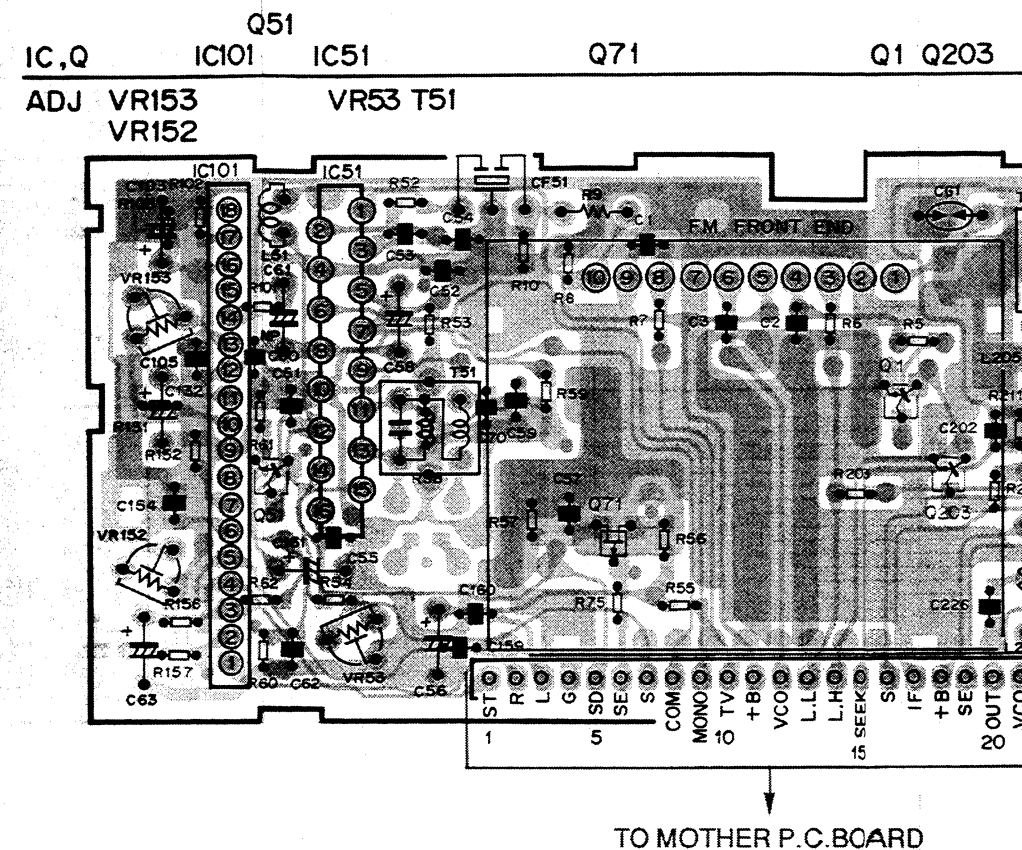


Fig. 34



TO MOTHER P.C. BOARD

- KEX-M800SDK/WG, KEX-M800/EW,
KEX-M800/ES, KEX-M800/UC

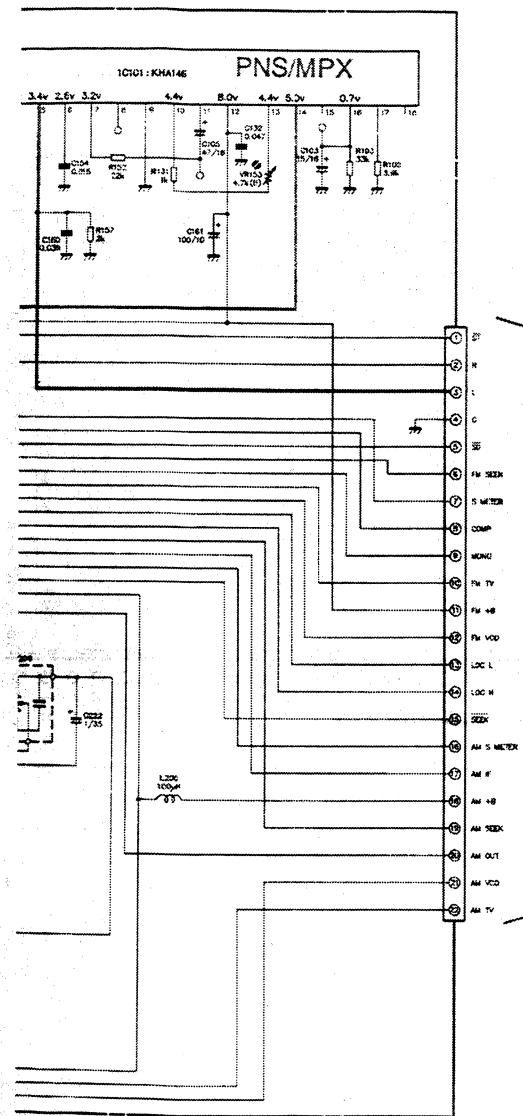


Fig. 32

- FM FONT END (CWB1037)
KEX-M800SDK/WG, KEX-M800/EW

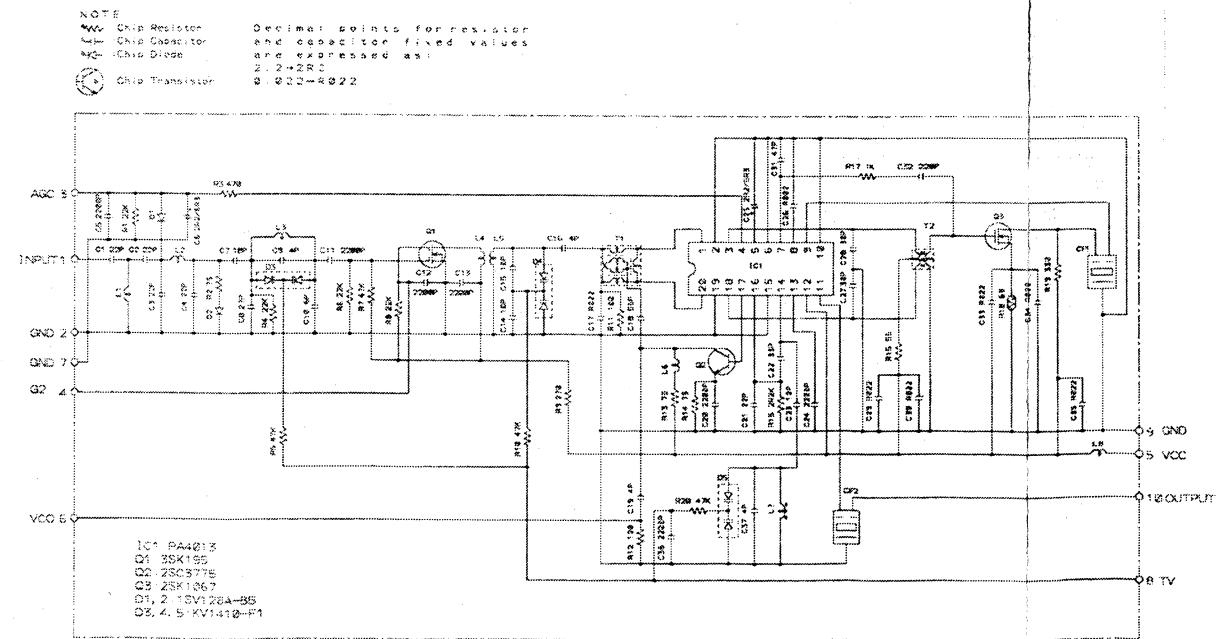


Fig. 34

- FM FONT END (CWB1039)
KEX-M800/ES, KEX-M800/UC

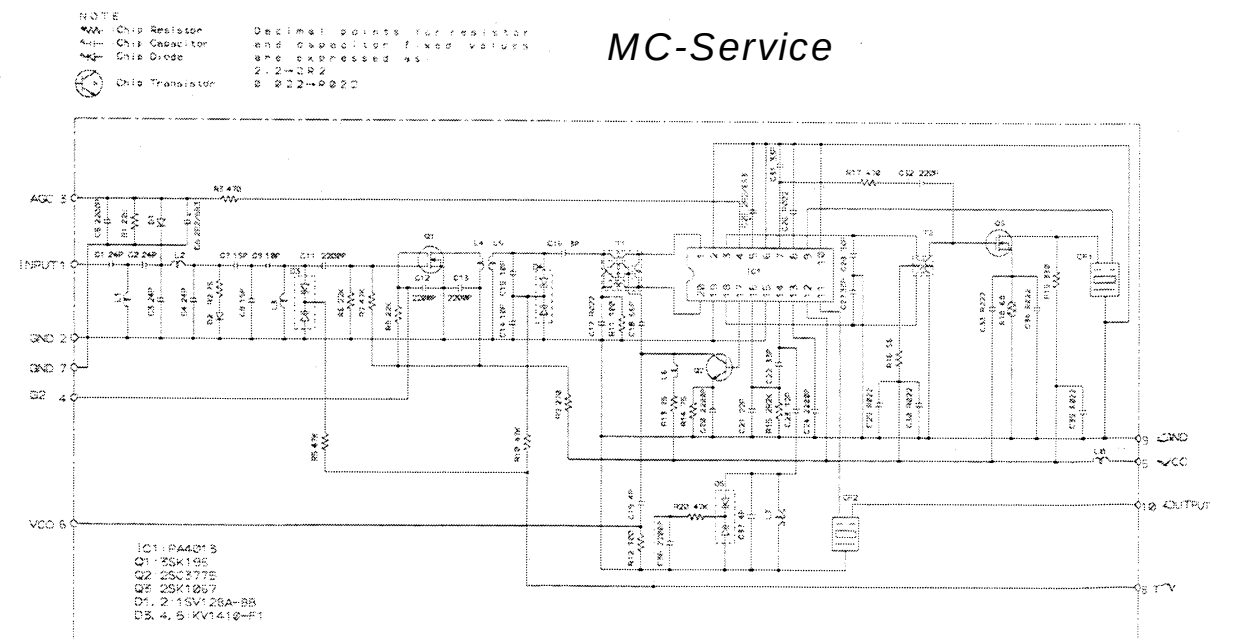


Fig. 35

Fig. 33

MC-Service

19. HOLDER ASSY AND GRILLE ASSY EXPLODED VIEW

• Parts List

Mark	No.	Des
	1	Scr
	2	Cov
	3	Scr
	4	Scr
●	5	Dis
●		Dis
	6	Plu
	7	Spa
★★	8	Lam
★★	9	Lam
★★	10	Lam
★★	11	Ins
★★	12	IC
	13	Hou
	14	Fil
	15	Len
	16	Pla
	17	LCD
	18	Fil
	19	Hol
	20	Ins
	21	Len
	22	Cus
★	23	But
★	24	But
★	25	But
★	26	But
★	27	But
★	28	But
★	29	But
	30	Spr
	31	Gri
		Gri
		Gri
		Gri
★	32	Cus
★	33	But
★	34	But
★	35	But
★	36	But

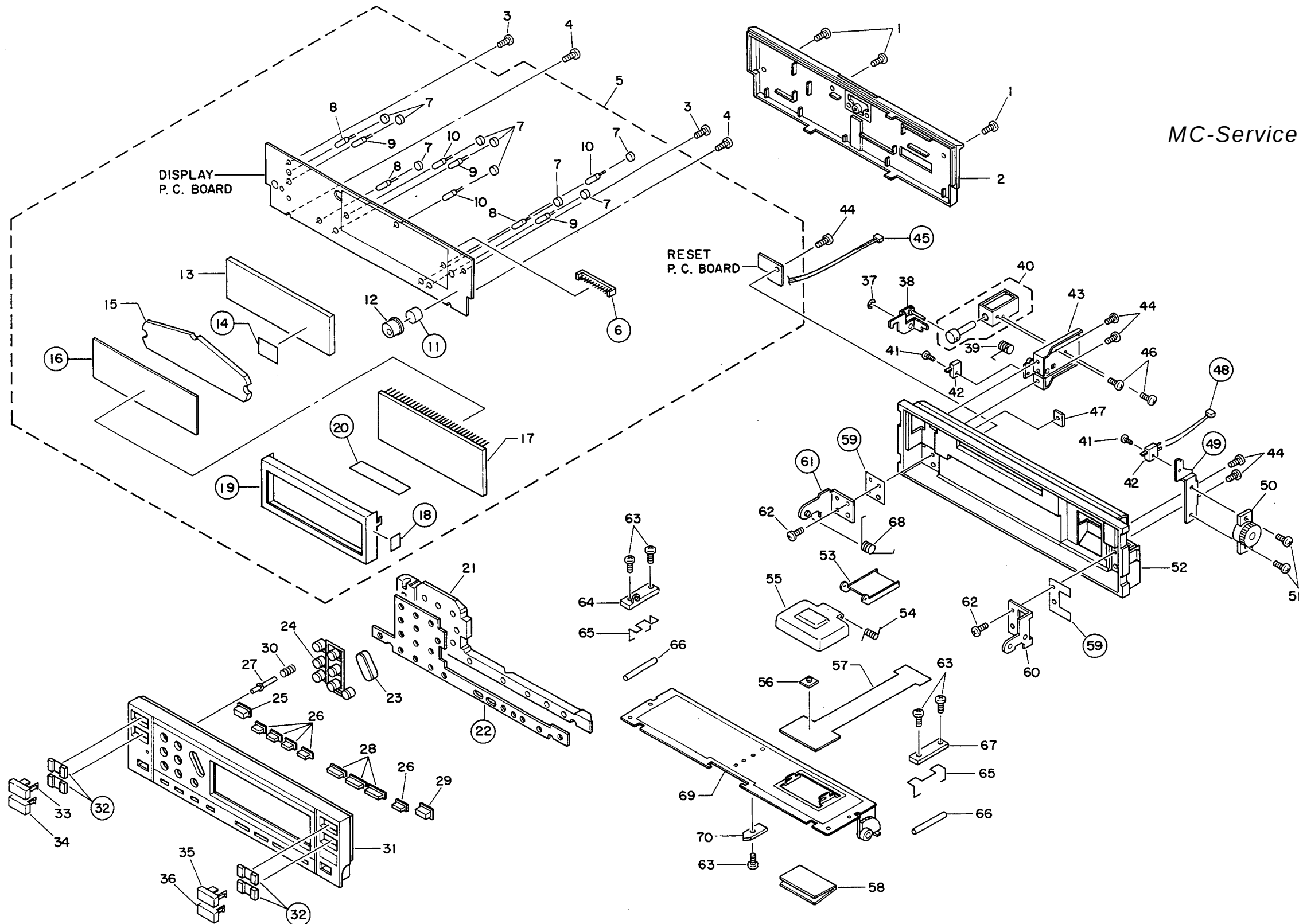
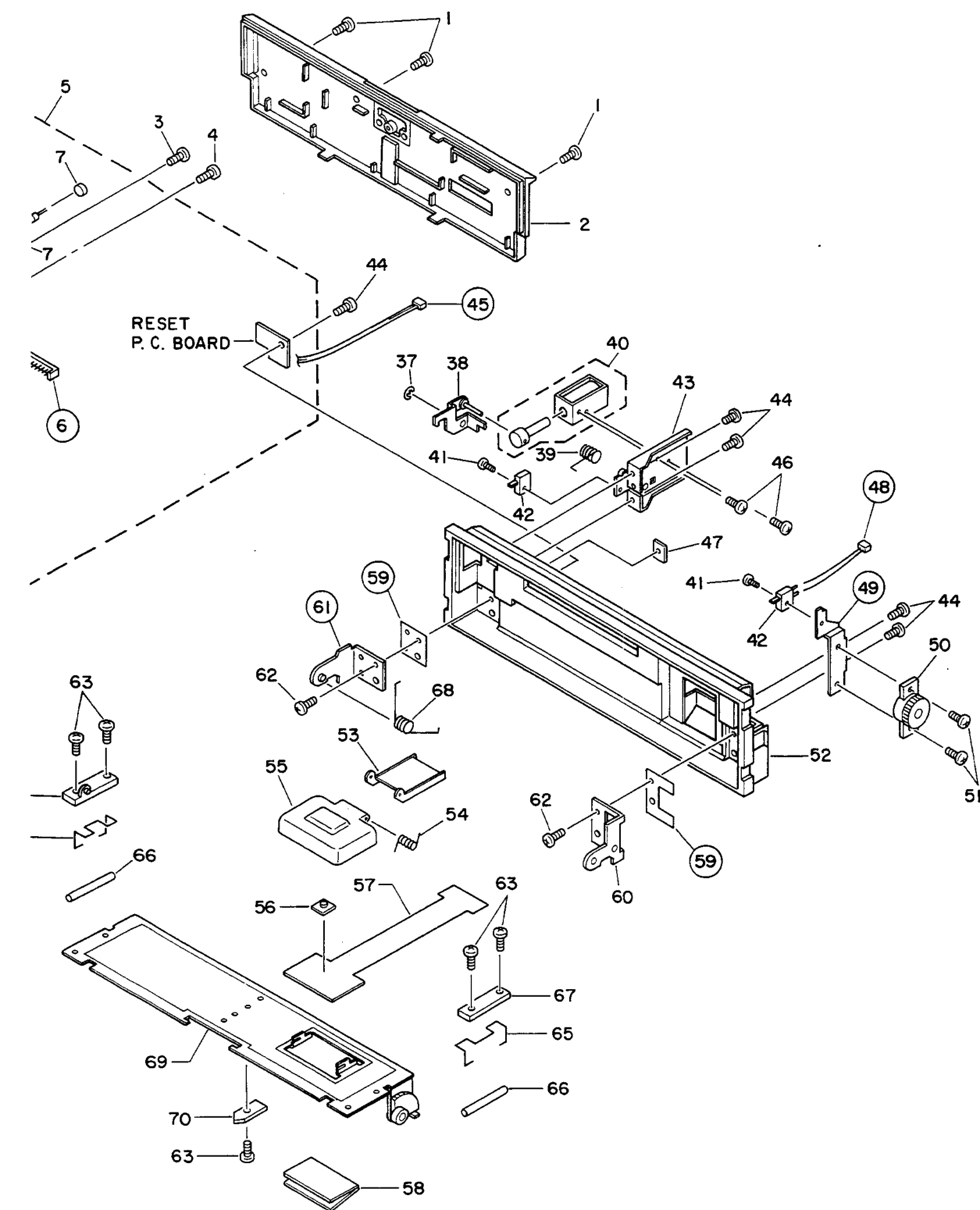


Fig. 36



MC-Service

• Parts List

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Screw	CBA1126		37	E Type Washer	YE15FUC
	2	Cover Unit	CXA2838		38	Arm Unit	CXA2658
	3	Screw	BPZ20P060FMC		39	Spring	CBH1260
	4	Screw	BPZ20P080FMC	★	40	Solenoid	CXP1009
◎	5	Display Unit (WG, EW)	CWS1138		41	Screw	PMZ20P050FMC
◎		Display Unit (ES, UC)	CWS1144	★★	42	Switch	CSN1012
	6	Plug			43	Bracket Unit	CXA2657
	7	Spacer	CNW-662		44	Screw	BPZ20P050FMC
★★	8	Lamp	CEL1013		45	Connector	
★★	9	Lamp (WG, EW)	CEL-147		46	Screw	BMZ20P025FMC
★★	10	Lamp	CEL1112	★	47	Button	CAC2000
★★	11	Insulator			48	Connector	
★★	12	IC	BX-1393		49	Holder	
	13	Housing	CNV2147		50	Damper Unit	CXD-766
	14	Film			51	Screw	PMZ20P030FMC
	15	Lens	CNV2145		52	Grille Unit	CXA2901
	16	Plate			53	Door	CNV2051
	17	LCD	CAW1042		54	Spring	CBH1217
	18	Film			55	Holder Unit	CXA2902
	19	Holder		★★	56	Switch	CSG1033
	20	Insulator			57	P.C. Board	CNP2117
	21	Lens	CNV2143		58	Socket	CKS1664
	22	Cushion			59	Cushion	
★	23	Button	CAC2058		60	Holder Unit	CXA2661
★	24	Button	CAC2051		61	Holder	
★	25	Button	CAC2050		62	Screw	BPZ20P060FZK
★	26	Button	CAC2059		63	Screw	CBA1082
★	27	Button	CAC2064		64	Holder	CNV2050
★	28	Button	CAC2060		65	Spring	CBH1259
★	29	Button	CAC2063		66	Roller	CLA1706
	30	Spring	CBH1275		67	Holder	CNV2141
	31	Grille Unit (WG)	CXA2833		68	Spring	CBH1216
		Grille Unit (EW)	CXA2834		69	Holder Unit	CXA3082
		Grille Unit (ES)	CXA2836		70	Guide	CNV2052
		Grille Unit (UC)	CXA3022				
	32	Cushion					
★	33	Button	CAC2048				
★	34	Button	CAC2049				
★	35	Button	CAC2061				
★	36	Button	CAC2062				

Fig. 36

20. CHASSIS EXPLODED VIEW

MC-Service

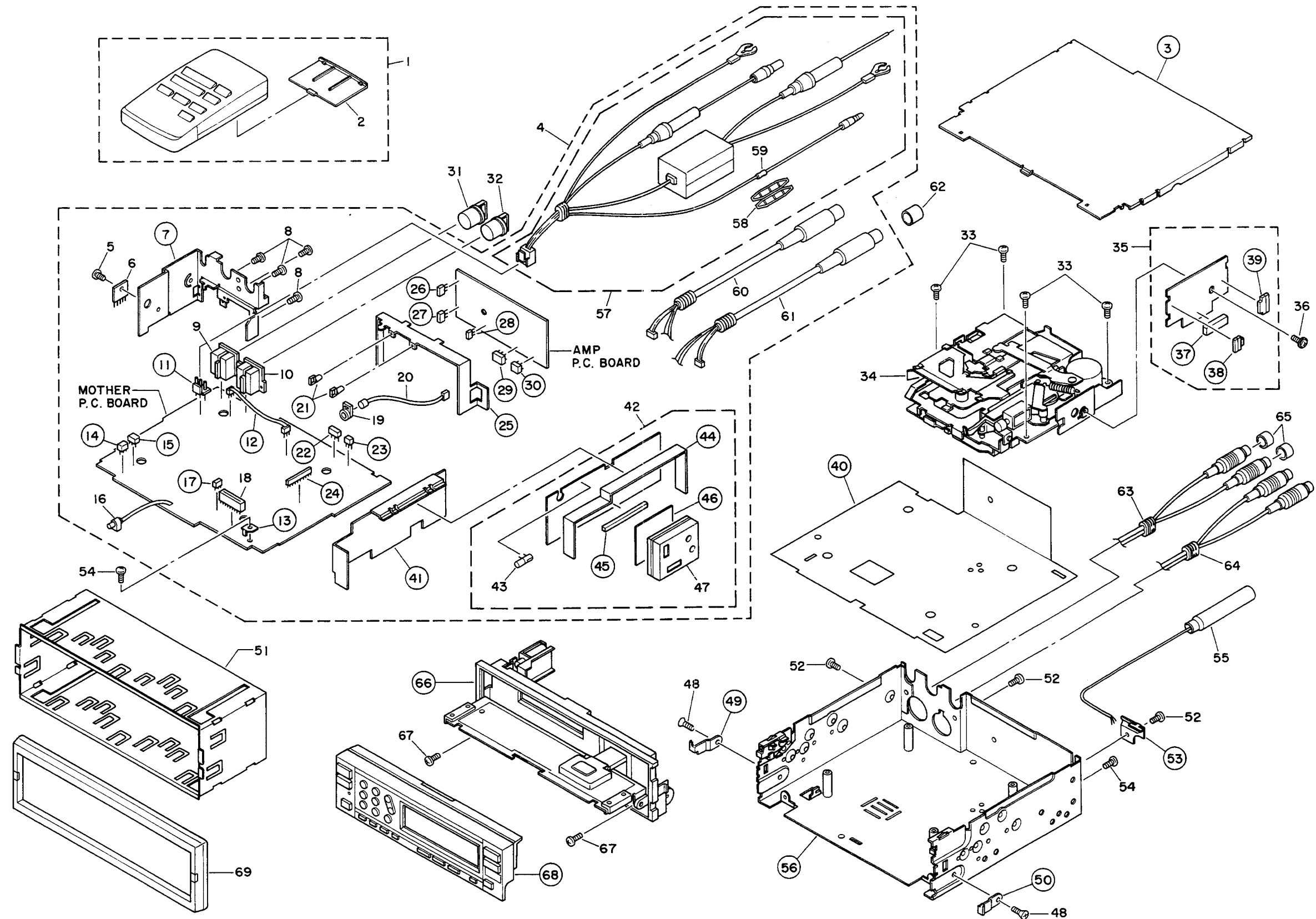


Fig. 37

• Parts List

NOTE:

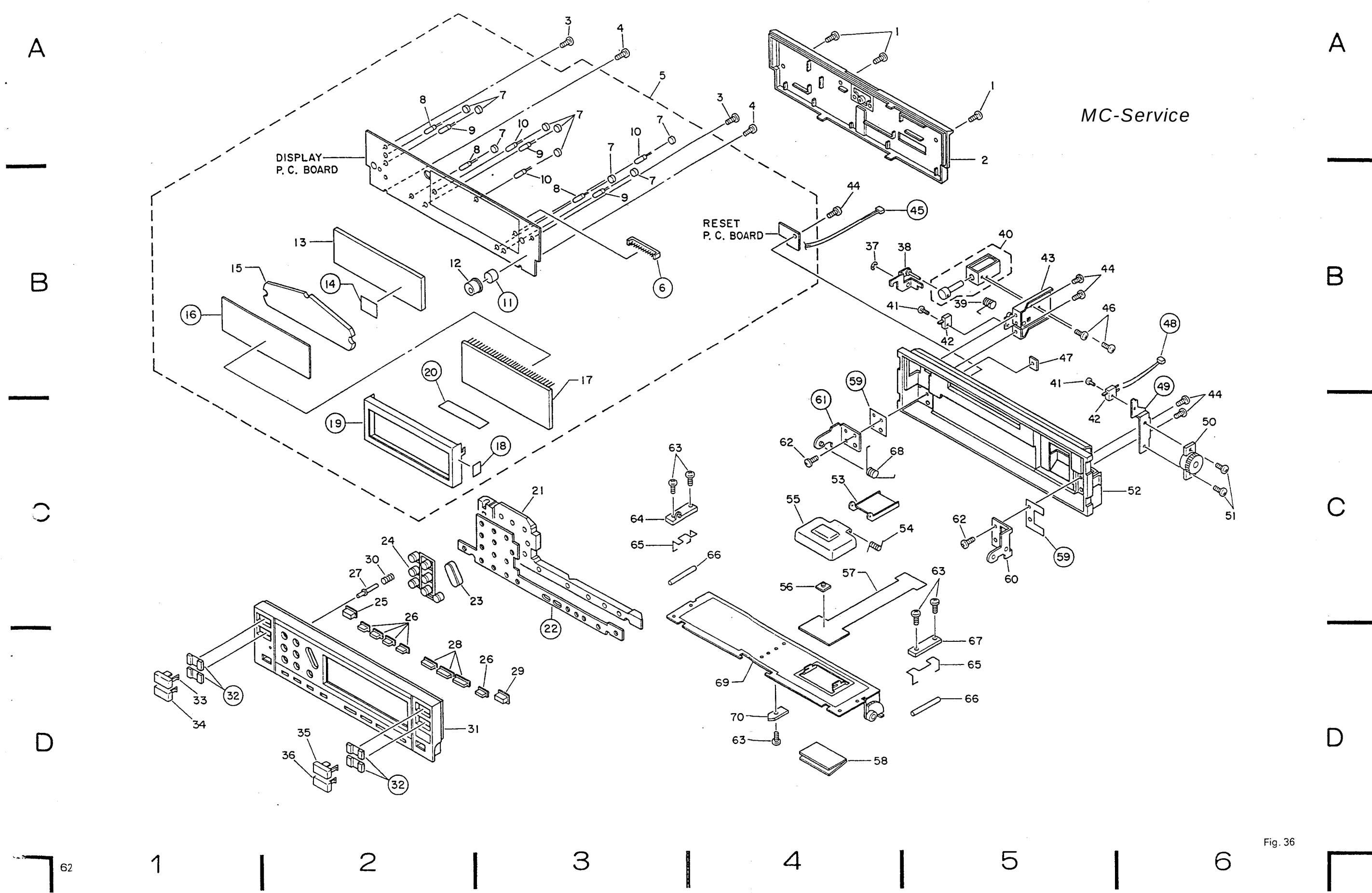
- For your Parts Stock Control, the fast moving items are indicated with the marks ★★ and ★.
- ★★: GENERALLY MOVES FASTER THAN ★.
- This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- Parts whose parts numbers are omitted are subject to being not supplied.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Remote Control Assy (WG, EW)	CXA2860		27	Plug (WG, EW)	
		Remote Control Assy (ES)	CXA2958			Plug (ES, UC)	
		Remote Control Assy (UC)	CXA3090		28	Connector	
	2	Cover	CZN3224		29	Connector	
					30	Connector	
	3	Case			31	Cap	CNV1468
⊙	4	Audio Tuner Unit (WG)	CWM1879		32	Cap	CNV1308
⊙		Audio Tuner Unit (EW)	CWM1881		33	Screw	BMZ26P050FMC
⊙		Audio Tuner Unit (ES)	CWM1996	⊙	34	Cassette Mechanism Assy	EXK1430
⊙		Audio Tuner Unit (UC)	CWM1885	⊙	35	Mechanism Control Unit	CWM1968
	5	Screw	BMZ30P060FMC		36	Screw	CBA1022
★★	6	IC	TA8214K		37	Connector	
	7	Holder (WG, EW)			38	Connector	
		Holder (ES, UC)			39	Connector	
	8	Screw	BMZ20P060FMC		40	Insulator	
	9	Connector	CKS1144		41	Shield Plate Unit	
	10	Connector	CKS1156	⊙	42	FM/AM Tuner Unit (WG, EW)	CWE1146
	11	Plug (WG, EW)		⊙		FM/AM Tuner Unit (ES)	CWE1147
		Plug (ES, UC)		⊙		FM/AM Tuner Unit (UC)	CWE1145
	12	Connector			43	Antenna Jack	CKX1010
	13	Holder			44	Chassis	
	14	Plug			45	Plug	
	15	Plug			46	Insulator	
★★	16	Lamp	CEL-148		47	FM Front End (WG, EW)	CWB1037
	17	Plug				FM Front End (ES, UC)	CWB1039
	18	Plug	CKS1437		48	Screw	CMZ30P050FMC
	19	Holder	CNV2196		49	Holder	
	20	Microphone Assy	CPM1003		50	Holder	
	21	Clamper			51	Holder	CNC1484
	22	Plug			52	Screw	BMZ30P050FMC
	23	Plug			53	Holder	
	24	Connector			54	Screw	BMZ26P040FMC
	25	Holder			55	Antenna Cable	CDH1093
	26	Plug (WG, EW)			56	Chassis Unit (WG)	
		Plug (ES, UC)				Chassis Unit (EW, ES, UC)	

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	57	Cord (WG, EW)	CDE2455		64	Connector (REAR)	CDE2491
		Cord (ES, UC)	CDE2361			(ES, UC)	
	58	Resistor	RS1/2P102JL		65	Cap (ES, UC)	CNW-829
	59	Cap	CNS1472		66	Holder Assy	
	60	DIN Connector Cord (REAR) (WG, EW)	CDE2358		67	Screw	BMZ30P060FBK
	61	DIN Connector Cord (FRONT) (WG, EW)	CDE2357		68	Grille Assy (WG)	
						Grille Assy (EW)	
	62	Cap (WG, EW)	CNV1455			Grille Assy (ES)	
	63	Connector (FRONT) (ES, UC)	CDE2360			Grille Assy (UC)	
					69	Panel	CNS1690

MC-Service

19. HOLDER ASSY AND GRILLE ASSY EXPLODED VIEW



• Parts List

Mark	No.	De
	1	Sc
	2	Co
	3	Sc
	4	Sc
⊙	5	Di
⊙		Di
	6	Pl
	7	Sp
★★	8	La
★★	9	La
★★	10	La
★★	11	In
★★	12	IC
	13	Ho
	14	Fi
	15	Le
	16	Pl
	17	LC
	18	Fi
	19	Ho
	20	In
	21	Le
	22	Cu
★	23	Bl
★	24	Bl
★	25	Bl
★	26	Bl
★	27	Bl
★	28	Bl
★	29	Bl
	30	Sp
	31	Gr
		Gr
		Gr
		Gr
★	32	Ci
★	33	Bl
★	34	Bl
★	35	Bl
★	36	Bl

Fig. 36

4

5

6

MC-Service

• Parts List

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Screw	CBA1126		37	E Type Washer	YE15FUC
	2	Cover Unit	CXA2838		38	Arm Unit	CXA2658
	3	Screw	BPZ20P060FMC		39	Spring	CBH1260
	4	Screw	BPZ20P080FMC	★	40	Solenoid	CXP1009
⊙	5	Display Unit (WG, EW)	CWS1138		41	Screw	PMZ20P050FMC
⊙		Display Unit (ES, UC)	CWS1144	★★	42	Switch	CSN1012
	6	Plug			43	Bracket Unit	CXA2657
	7	Spacer	CNW-662		44	Screw	BPZ20P050FMC
★★	8	Lamp	CEL1013		45	Connector	
★★	9	Lamp (WG, EW)	CEL-147		46	Screw	BMZ20P025FMC
★★	10	Lamp	CEL1112	★	47	Button	CAC2000
★★	11	Insulator			48	Connector	
	12	IC	BX-1393		49	Holder	
	13	Housing	CNV2147		50	Damper Unit	CXD-766
	14	Film			51	Screw	PMZ20P030FMC
	15	Lens	CNV2145		52	Grille Unit	CXA2901
	16	Plate			53	Door	CNV2051
	17	LCD	CAW1042		54	Spring	CBH1217
	18	Film			55	Holder Unit	CXA2902
	19	Holder		★★	56	Switch	CSG1033
	20	Insulator			57	P.C. Board	CNP2117
	21	Lens	CNV2143		58	Socket	CKS1664
	22	Cushion			59	Cushion	
★	23	Button	CAC2058		60	Holder Unit	CXA2661
★	24	Button	CAC2051		61	Holder	
★	25	Button	CAC2050		62	Screw	BPZ20P060FZK
★	26	Button	CAC2059		63	Screw	CBA1082
★	27	Button	CAC2064		64	Holder	CNV2050
★	28	Button	CAC2060		65	Spring	CBH1259
★	29	Button	CAC2063		66	Roller	CLA1706
	30	Spring	CBH1275		67	Holder	CNV2141
	31	Grille Unit (WG)	CXA2833		68	Spring	CBH1216
		Grille Unit (EW)	CXA2834		69	Holder Unit	CXA3082
		Grille Unit (ES)	CXA2836		70	Guide	CNV2052
		Grille Unit (UC)	CXA3022				
★	32	Cushion					
★	33	Button	CAC2048				
★	34	Button	CAC2049				
★	35	Button	CAC2061				
★	36	Button	CAC2062				

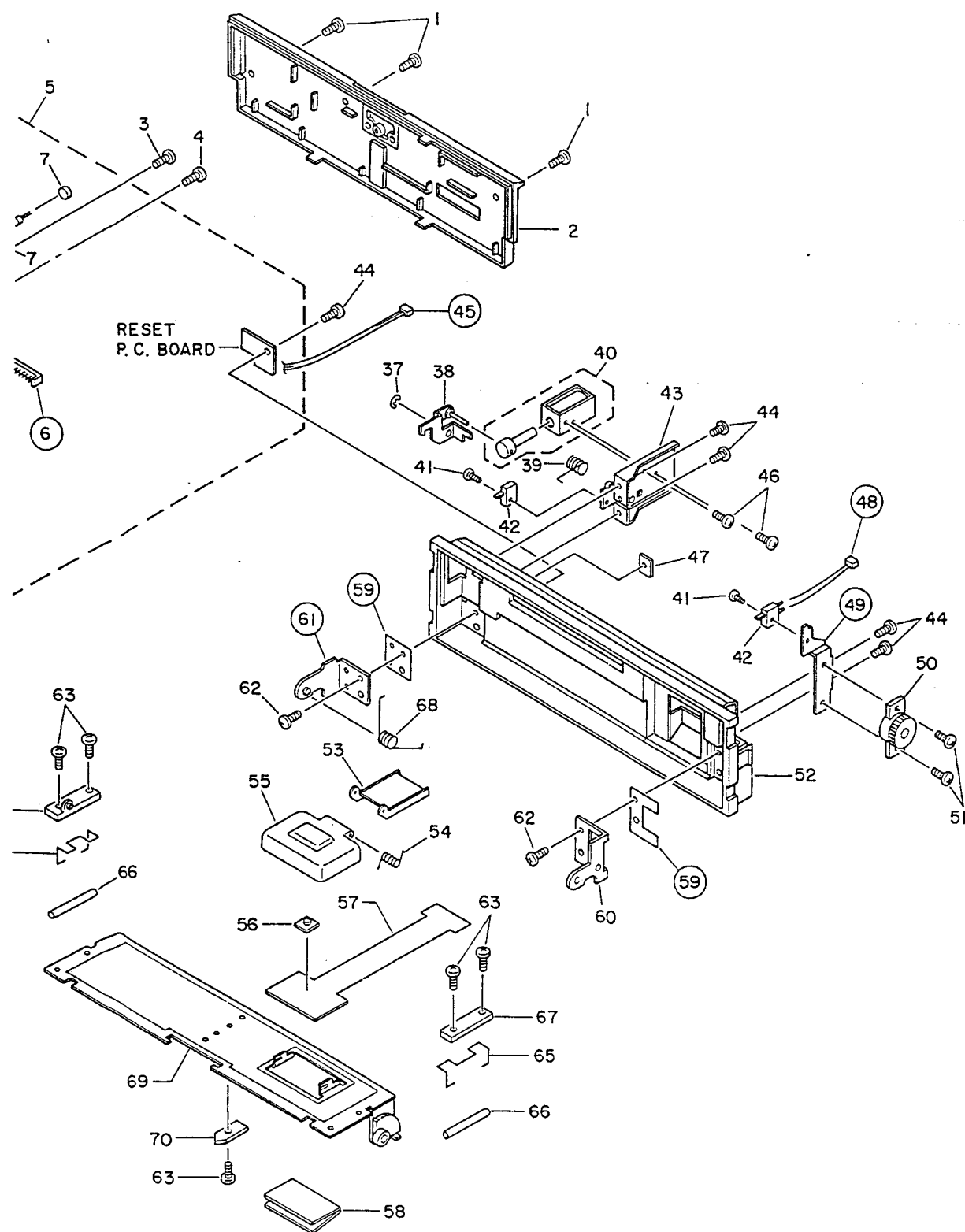
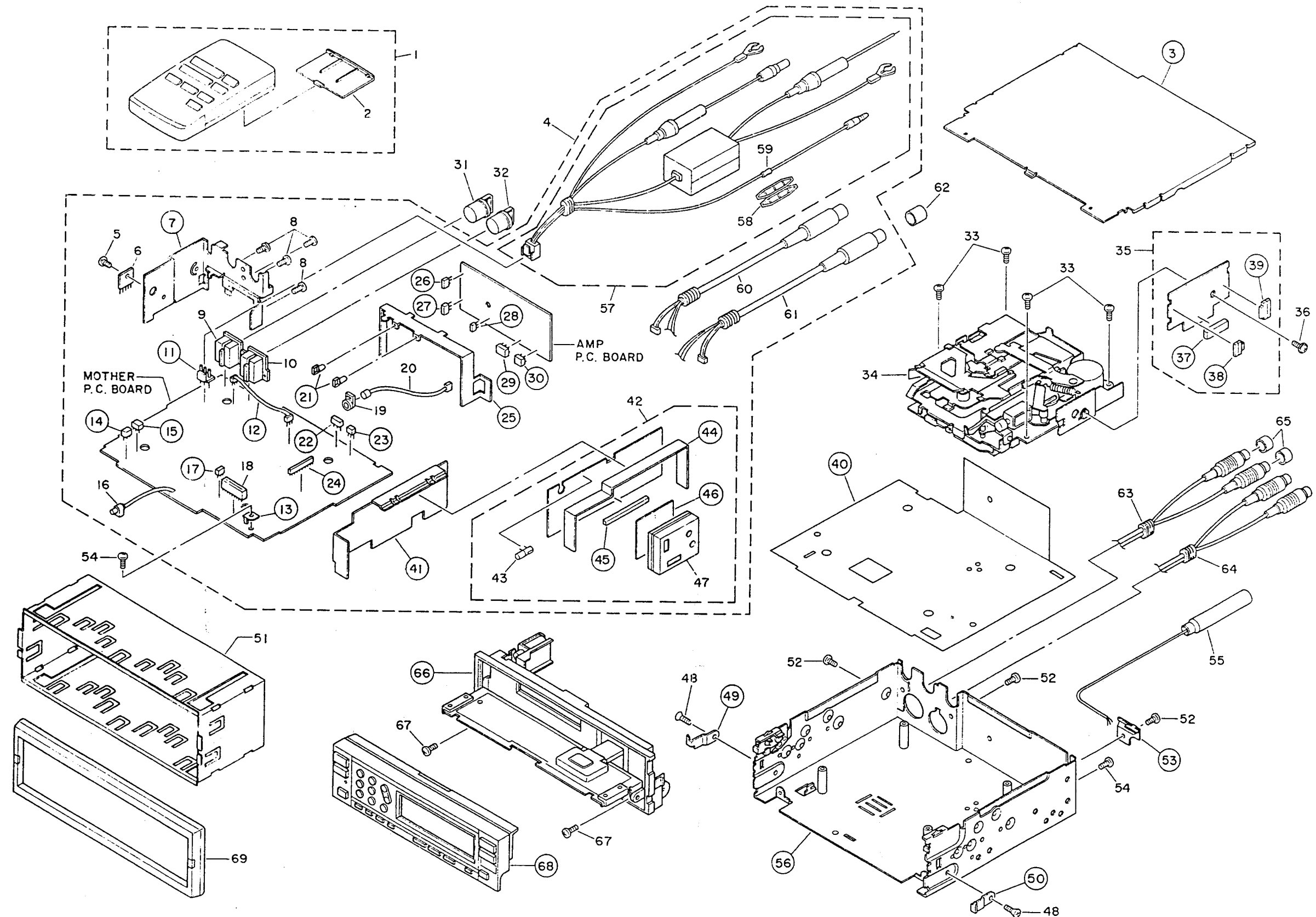


Fig. 36

20. CHASSIS EXPLODED VIEW

MC-Service





• Parts List

NOTE:

- For your Parts Stock Control, the fast moving items are indicated with the marks ★ ★ and ★.
- ★ ★: *GENERALLY MOVES FASTER THAN ★*
- This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.*
- Parts whose parts numbers are omitted are subject to being not supplied.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Remote Control Assy (WG, EW)	CXA2860		27	Plug (WG, EW)	
		Remote Control Assy (ES)	CXA2958			Plug (ES, UC)	
		Remote Control Assy (UC)	CXA3090		28	Connector	
	2	Cover	CZN3224		29	Connector	
					30	Connector	
	3	Case			31	Cap	CNV1468
⊙	4	Audio Tuner Unit (WG)	CWM1879		32	Cap	CNV1308
⊙		Audio Tuner Unit (EW)	CWM1881		33	Screw	BMZ26P050FMC
⊙		Audio Tuner Unit (ES)	CWM1996	⊙	34	Cassette Mechanism Assy	EXK1430
⊙		Audio Tuner Unit (UC)	CWM1885	⊙	35	Mechanism Control Unit	CWM1968
	5	Screw	BMZ30P060FMC		36	Screw	CBA1022
★★	6	IC	TA8214K		37	Connector	
	7	Holder (WG, EW)			38	Connector	
		Holder (ES, UC)			39	Connector	
	8	Screw	BMZ20P060FMC		40	Insulator	
	9	Connector	CKS1144		41	Shield Plate Unit	
	10	Connector	CKS1156	⊙	42	FM/AM Tuner Unit (WG, EW)	CWE1146
	11	Plug (WG, EW)		⊙		FM/AM Tuner Unit (ES)	CWE1147
		Plug (ES, UC)		⊙		FM/AM Tuner Unit (UC)	CWE1145
	12	Connector			43	Antenna Jack	CKX1010
	13	Holder			44	Chassis	
	14	Plug			45	Plug	
	15	Plug			46	Insulator	
★★	16	Lamp	CEL-148		47	FM Front End (WG, EW)	CWB1037
	17	Plug				FM Front End (ES, UC)	CWB1039
	18	Plug	CKS1437		48	Screw	CMZ30P050FMC
	19	Holder	CNV2196		49	Holder	
	20	Microphone Assy	CPM1003		50	Holder	
	21	Clamper			51	Holder	CNC1484
	22	Plug			52	Screw	BMZ30P050FMC
	23	Plug			53	Holder	
	24	Connector			54	Screw	BMZ26P040FMC
	25	Holder			55	Antenna Cable	CDH1093
	26	Plug (WG, EW)			56	Chassis Unit (WG)	
		Plug (ES, UC)				Chassis Unit (EW, ES, UC)	

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	57	Cord (WG, EW)	CDE2455		54	Connector (REAR)	CDE2491
		Cord (ES, UC)	CDE2361			(ES, UC)	
	58	Resistor	RS1/2P102JL		55	Cap (ES, UC)	CNV-829
	59	Cap	CNS1472		66	Holder Assy	
	60	DIN Connector Cord (REAR) (WG, EW)	CDE2358		67	Screw	BMZ30P060FMC
					68	Grille Assy (WG)	
	61	DIN Connector Cord (FRONT) (WG, EW)	CDE2357			Grille Assy (FW)	
						Grille Assy (FS)	
	62	Cap (WG, EW)	CNV1455			Grille Assy (UC)	
	63	Connector (FRONT) (ES, UC)	CDE2360		69	Panel	CNS1690

MC-Service

MC-Service

• Parts List

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Lever	ENV1124		41	Head Base Unit	EXA1071
	2	Arm Unit	EXA1081		42	Roller	ELA1147
	3	Spring	EBH1152		43	Spring	EBH1131
	4	Cassette Holder	ENC1165		44	Arm	ENV1121
	5	Roller	ELA1148		45	Lever Unit	
	6	Washer	CBF1037		46	Spring	EBH1153
	7	Screw	BMZ20P030FMC		47	Washer	YE20FUC
	8	Cover			48	Arm	
	9	Screw	EBA1016	★★	49	Pinch Roller Unit	EXA1072
	10	Spring	EBL1011		50	Spring	EBH1133
	11	Spacer	ENV1105		51	Lever	
	12	Screw	BMZ20P025FMC		52	Screw	CBA1076
	13	Spring	EBH1145		53	P.C. Board	
	14	Washer	EBE1005	★★	54	Switch	CSN1005
	15	Screw	HBA-175		55	Screw	CBA1070
★★	16	Head Unit	EXA1088		56	Spring	EBH1147
	17	Arm			57	Lever	
	18	Arm			58	Screw	PMS20P025FMC
	19	Spring	EBH1143	★★	59	Motor Unit	EXA1089
	20	Lever Unit			60	Lever	
	21	Arm			61	Spring	EBH1149
	22	Washer	YE15FUC		62	Lever	
	23	Spring	EBH1154		63	Gear	ENV1106
	24	Arm Unit			64	Chassis Unit	
	25	Spring	EBH1138		65	Arm Unit	EXA1082
	26	Arm	ENV1122		66	Arm	
	27	Spring	EBH1142		67	Spring	EBH1146
★★	28	Pinch Roller Unit	EXA1073		68	Clamper	
	29	Spring	EBH1134	★	69	Solenoid	EXP1004
	30	Arm			70	Spring	EBH1157
	31	Spring	EBH1144		71	Spring	EBH1151
	32	Arm			72	Spring	EBH1148
	33	Collar	ENV1117		73	Spring	EBH1135
	34	Spring	EBH1155		74	Gear	ENV1118
★★	35	Gear	ENV1116		75	Guide Unit	
	36	Washer	CBF1038		76	Screw	PMS20P022FUC
	37	Gear	ENV1115		77	Bracket	
	38	Lever Unit	EXA1074		78	P.C. Board	
	39	Gear	ENV1107		79	Arm	
	40	Roller	ELA1146		80	Spring	EBH1158

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	81	Clamper			101	Arm	
	82	Roller	ELA1149		102	Spring	EBH1140
	83	Gear	ENV1111		103	Flywheel	ENV1127
★	84	Solenoid	EXP1003		104	Flywheel	ENV1128
	85	Gear	ENV1109		105	Spring	EBH1159
	86	Collar	ELA1152		106	Arm	ENV1119
	87	Gear	ENV1110		107	Collar	ELA1150
	88	Arm			108	Screw	HBA-183
	89	Spring	EBH1136		109	E Type Washer	CBG1003
	90	Arm			110	Washer	HBF-179
	91	Lever		★★	111	Belt	ENT1011
	92	Spring	EBH1137		112	Cover	
	93	Gear	ENV1112		113	Lever	
	94	Gear Unit	EXA1083		114	Arm Unit	
	95	Gear	ENV1113		115	Spring	EBH1139
	96	Gear	ENV1108				
	97	Collar	ELA1151				
	98	Arm Unit					
	99	Spring	EBH1141				
	100	Gear	ENV1114				

22. ELECTRICAL PARTS LIST

NOTE:

- For your parts Stock Control, the fast moving items are indicated with the marks ** and †.

** : GENERALLY MOVES FASTER THAN †.

This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/8S □□□J, RS1/10S □□□J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

Audio Tuner Unit
Consists of
• Amp P. C. Board
• Mother P. C. Board

Unit Number :

Unit Name : Audio Tuner Unit

MISCELLANEOUS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.	Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
**	IC	301			HA12088ANT	**	Q	708			2SC1545F
**	IC	451			KHA159A	**	Q	710 803			DTA114TS
**	IC	501 (WG)			KHA142	**	Q	750 764			DTC144TS
**	IC	502 (WG)			CWW1091	**	Q	751 759 770			UN4122
**	IC	503			LC7218	**	Q	752 (WG, EW, UC) 758 (WG, EW, UC)			DTC114ES
**	IC	504			TC4069UBP	**	Q	752 (ES) 758 (ES)			UN4211
**	IC	551			PM2002	**	Q	753 757 762			2SB1243
**	IC	701			PD4188	**	Q	756 (WG, EW)			UN4122
**	IC	702			S-8053ANO	**	Q	760 763 801			DTC143TS
**	IC	703			TAB214K	**	Q	765 766			2SD1859
**	Q	301 302			DTC143ES	**	Q	767 (WG, EW)			DTC143TS
**	Q	451 452		Chip Transistor	2SC2712	**	Q	768 (WG, EW) 769 (WG, EW)			2SB1243
**	Q	501 (WG)			2SC2458	**	Q	771			DTA124ES
**	Q	502 503 504 513 514 601 602 603			2SC2458	**	Q	773			2SB945
**	Q	505			2SK330	**	Q	851 852 853 854			2SA1048
**	Q	506 507			2SA1150	**	Q	855 856 857 858		Chip Transistor	DTC343TK
**	Q	508			UN4122	**	Q	859 860		Chip Transistor	2SC2712
**	Q	510 (EW, UC)			DTC114ES	*	D	451 452			RD5R1JSB2
**	Q	510 (ES) 511 (ES) 604 (ES)			UN4211	*	D	501 (WG) 502 (WG)			1SS133
**	Q	511 (WG, EW, UC) 604 (WG, EW, UC)			DTC114ES	*	D	503 504 505 506 507 601 604 605			1SS133
**	Q	512 (WG, EW)			DTC124ES	*	D	509			RD2R7ESB1
**	Q	551			2SK184	*	D	551 552 606 607			1SS133
**	Q	552		Chip Transistor	2SC2712	*	D	651			ERC05-10B
**	Q	605 606 607 608 609 610			DTC343TS	*	D	701 (ES)			1SS133
**	Q	611			DTA114TS	*	D	703 704 708 709 757 802 803			1SS133
**	Q	701			2SA1048	*	D	706 (WG, UC)			1SS133
**	Q	702 705 754 755 761 772 802			2SC2458	*	D	707 (WG)			1SS133
**	Q	704 (WG, EW, UC)			DTC124ES	*	D	750 (WG, EW)			RD7R5JSB2
**	Q	704 (ES)			UN4212	*	D	751 752			RD7R5JSB2
**	Q	706 707			DTC314TS	*	D	753 754 755			ERA15-02VH

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.	Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
* D	756				RD5R6JSB2	R	513 514 722 753				RS1/10S223J
* D	759				RD6R2JSB3	R	516				RS1/10S393J
* D	760				RD9R1JSB3	R	517 518 519 520 619 620 621 622 623 624				RS1/10S473J
* D	761 (ES, UC)				ERA15-02VH	R	521 (WG) 527 (WG) 545 (WG)				RS1/10S473J
* D	801				RD8R2JSB2	R	522				RS1/10S472J
* D	851 852	Chip Diode			MA151WA-MN	R	523 537 538 625				RS1/10S103J
* D	853 854	Chip Diode			MA3075M	R	524 541 553 556 557 558 562 572				RS1/10S472J
L	501	Ferri-Inductor			LAU101K	R	525 526 534				RS1/10S473J
L	502	Ferri-Inductor			LAU220K	R	529 530				RS1/10S104J
L	503	Inductor			LAUR22M	R	531 532				RS1/10S474J
L	504 505 506	Ferri-Inductor			LAU1R0M	R	533 (WG)				RS1/10S474J
L	701	Choke Coil			LAU2R7M	R	543				RS1/10S0R0J
L	750 751 752	Inductor			LAU150K	R	544 (WG)				RS1/10S471J
L	753 (WG, EW)	Inductor			LAU150K	R	551 561 565 574				RS1/10S103J
T	301 302	Coil			CTF1072	R	552				RS1/10S474J
CG	701	Trimmer			CCG1002	R	554 555				RS1/10S153J
IB	701				CWW1280	R	559				RS1/10S684J
IB	702				CWW1290	R	560				RS1/10S682J
IB	703				CWW1293	R	563				RS1/10S683J
IB	704				CWW1276	R	564				RS1/10S471J
IB	705				CWW1185	R	566				RS1/10S222J
IB	706				CWW1128	R	567 (WG, EW) 568 (WG, EW) 569 (WG, EW) 570 (WG, EW)				RS1/10S393J
IB	707				CWW1291	R	567 (ES, UC) 568 (ES, UC) 569 (ES, UC) 570 (ES, UC)				RS1/10S153J
IB	708				CWW1292	R	571				RS1/10S154J
G	750	Surge Absorber			ERZ-C07DK220	R	573				RS1/10S104J
X	501	Crystal Resonator			CSS1030	R	575				RS1/10S183J
X	502 (WG)	Ceramic Resonator			CSS1019	R	576				RS1/10S562J
X	701	Crystal Resonator			CSS1023	R	603 604 613 614				RS1/10S102J
X	702	Buzzer			CPV1006	R	605 606				RS1/10S222J
** IL	701	Lamp 14V 40mA			CEL-148	R	615 616				RS1/10S122J
** VR	301 302	Semi-fixed 33kΩ (B)			CCP-381	R	617 618				RS1/10S183J
** VR	551 552	Semi-fixed 10kΩ (B)			VRTB6VS103	R	701				RS1/10S153J
MIC	551	Microphone Assy			CPM1003	R	702 723 738 778 779 803				RS1/10S104J
		FM/AM Tuner Unit (WG, EW)				R	703 704 719 720 721 734				RD1/4PS1681JL
		FM/AM Tuner Unit (ES)				R	705 706 708 712 713 714 715 771				RS1/10S102J
		FM/AM Tuner Unit (UC)				R	707 (WG)				RS1/10S102J
						R	707 (EW, ES, UC)				RS1/10S103J
						R	709				RS1/10S474J
						R	710 731				RD1/4PS471JL
						R	711 759 762 765 801				RS1/10S103J
						R	716 717				RS1/10S681J
						R	718				RS1/10S682J
						R	724				RS1/10S124J
						R	725 754 767				RD1/4PS102JL
						R	726 727 728 729 751				RD1/4PS103JL
						R	732				RS1/10S472J
						R	733 735 766 768 804				RD1/4PS473JL
						R	736 (WG, EW)				RS1/10S0R0J
						R	737 (ES, UC)				RS1/10S0R0J
						R	739				RS1/10S103J
						R	740				RS1P101JL
						R	742				RS1/10S473J
						R	752				RD1/4PS222JL
						R	755 (WG, EW) 756 (WG, EW) 788 (WG, EW)				RS1/10S472J
						R	757 758 761 763 764				RS1/10S473J
						R	760				RN1/2P471JL
						R	769				RS1P100JL
						R	772 (WG, EW) 773 (WG, EW) 775 (WG, EW)				RD1/4PS102JL
						R	772 (ES, UC)				RD1/4PS100JL
						R	774 (ES, UC)				RD1/4PS102JL

RESISTORS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
R	301 302	1kΩ (1/6W)			CCN1015
R	303 304	3.3kΩ (1/6W)			CCN1016
R	305	20kΩ (1/6W)			CCN1018
R	306 307				RS1/10S101J
R	308				RS1/10S332J
R	309 528 536 802				RS1/10S472J
R	310				RS1/10S682J
R	311				RS1/8S683J
R	312				RS1/10S683J
R	451 452				RS1/10S222J
R	453 454				RS1/10S563J
R	455 (WG, EW) 456 (WG, EW)				RS1/10S0R0J
R	455 (ES, UC) 456 (ES, UC)				RS1/10S472J
R	457 (ES, UC) 458 (ES, UC)				RS1/10S332J
R	501 502 503 504				RS1/10S681J
R	505 506 542 601 602				RS1/10S102J
R	507				RS1/10S152J
R	508 (WG)				RS1/10S222J
R	509 510 511 515 539 630				RS1/10S222J
R	512 (WG)				RS1/10S472J

Mark	===== Circuit Symbol & No.	==== Part Name	Part No.	Mark	===== Circuit Symbol & No.	==== Part Name	Part No.
R	776 (WG, EW)		RD1/4PS223JL	C	529 530 534 535		CKSQYF473Z50
R	777 787		RD1/4PS472JL	C	531 702 704		CKSQYB471K50
R	780 781		RS1/10S273J	C	551 552 553 568		CEA470M16L2
R	782 783		RS1/10S393J	C	554 566		CEA220M6R3LS
R	784 785 859 860 861 862		RS1/10S473J	C	555 566		CEA100M10NPLL
R	786		RS1/8S102J	C	557		COMA823J50
R	789 (ES, UC)		RD1/4PS472JL	C	558 563		CEAR68M50LS2
R	790 (ES, UC) 794 (ES, UC)		RS1/10S472J	C	559		CEA220M10NPLL
R	791 (ES, UC)		RS1/10S471J	C	560 562		CEA100M16LS2
R	792 793		RS1/10S472J	C	561		CEA470M6R3LS
R	851 852 853 854		RS1/10S221J	C	564		CEA470M16LS
R	855 (WG, EW) 856 (WG, EW) 857 (WG, EW) 858 (WG, EW)		RS1/10S393J	C	565 (WG, EW)		CEA100M16LS2
R	855 (ES, UC) 856 (ES, UC) 857 (ES, UC) 858 (ES, UC)		RS1/10S123J	C	565 (ES, UC)		CEA220M6R3LS
R	863 (WG, EW) 864 (WG, EW) 865 (WG, EW) 866 (WG, EW)		RS1/10S102J	C	567		CEA101M10LS
R	863 (ES, UC) 864 (ES, UC) 865 (ES, UC) 866 (ES, UC)		RS1/10S820J	C	601 602		CEAR33M50LS2
R	867 (WG, EW) 868 (WG, EW) 869 (WG, EW) 870 (WG, EW)		RS1/10S471J	C	603 604 713 714		CEA2R2M50LS2
R	867 (ES, UC) 868 (ES, UC) 869 (ES, UC) 870 (ES, UC)		RS1/10S561J	C	605 606 711 712		CEA010M50LS2
R	871 (WG, EW) 872 (WG, EW) 873 (WG, EW) 874 (WG, EW)		RS1/10S471J	C	607		CEA221M10L2
R	871 (ES, UC) 872 (ES, UC) 873 (ES, UC) 874 (ES, UC)		RS1/10S391J	C	701 703 715 751 752 757 759 765		CKSQYF473Z50
R	875 876 877 878		RS1/10S223J	C	705		CEA2R2M50LS2
R	879 880		RS1/10S102J	C	706		CCSQCH330J50
R	881 (WG, EW)		RS1/10S103J	C	707		CKSYF104Z25
				C	708 710 716 717		CEA470M16L2
				C	709		CEA221M10L2
				C	750 (WG, EW)		CKSQYB223K50

CAPACITORS

Mark	===== Circuit Symbol & No.	==== Part Name	Part No.	Mark	===== Circuit Symbol & No.	==== Part Name	Part No.
C	301	470 μ F/10V	CCH1019	C	753		CEA470M16LS
C	302	470 μ F/6.3V	CCH1013	C	754		CKSYB103K50
C	303 304 305 306		CEAR68M50LS2	C	755		CEA332M16L2
C	307 308 309 310		CEA010M50LS2	C	756 758 768		CEA220M16LS
C	311 312 313 314		CEA2R2M50LS2	C	763 766		CEA101M10LS
C	315 316		CEA4R7M35LS	C	764		CEA470M16L2
C	317 318 762		CEA100M16LS2	C	767		CCG-081
C	319		CEA220M16LS	C	801		CEA010M50LS2
C	320 321 322 323		CQPA103G2A	C	851 (WG, EW) 852 (WG, EW) 853 (WG, EW) 854 (WG, EW)		CEA4R7M35LS
C	324 325 326 327		CKSQYB183J50	C	851 (ES, UC) 852 (ES, UC) 853 (ES, UC) 854 (ES, UC)		CEA100M16LS2
C	328 329		CKSQYB823J25	C	855 (WG, EW) 856 (WG, EW) 857 (WG, EW) 858 (WG, EW)		CEA2R2M50LS2
C	451		CEA470M6R3LS	C	855 (ES, UC) 856 (ES, UC) 857 (ES, UC) 858 (ES, UC)		CEA4R7M35LS
C	452		CEA470M16L2	C	859 860 861 862		CKCYB102K50
C	453 454		CEA331M6R3L2	C	863 (WG, EW)		CKCYB102K50
C	455		CEA221M10L2	C	864 (WG, EW)		CKSQYB102K50
C	501 (WG)		CEAR33M50LS2	C	865 866		CEA330M10LS
C	502 (WG, EW)		CEAR47M50LS2	C	867 868		CEA101M10LS
C	503 (WG)		CEA4R7M35LS				
C	504 (WG)		CEA100M16LS2				
C	505 (WG)		CEA101M10LS				
C	506 (WG) 507 (WG)		CEA470M16LS				
C	508	4.7 μ F/16V	CCH1005				
C	509 (WG)		CKSQYB103K50				
C	510 514 522		CKSQYB103K50				
C	513 720		CKSYF104Z25				
C	515		CKSQYB223K50				
C	516 517 527 532 536 538 539 769		CKSQYF473Z50				
C	518 (WG)		CQEA683J50				
C	519		CCSQCH180J50				
C	520		CCSQCH270J50				

Unit Number :
Unit Name : FM/AM Tuner Unit

MISCELLANEOUS

Mark	===== Circuit Symbol & No.	==== Part Name	Part No.
**	IC 51		L A1140B
**	IC 101		K HA146
**	IC 201		P A4010
**	Q 1 203 205	Chip Transistor	D TC124EX
**	Q 51 202	Chip Transistor	2 SC2712
**	Q 71	Chip Transistor	2 SJ106
**	Q 201		2 SK435
*	D 201 202 203 204		1 SS133
*	D 205	Variable Capacitance Diode	S VC203-AB
L	51	Inductor	L AU150K

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.	Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
L	201	(WG, EW)		Inductor	CTF1084	C	57			CKSYB683K25	
L	201	(ES, UC)		Ferri-Inductor	CTF1026	C	58			CEA010M50LS2	
L	203			Ferri-Inductor	LAU220K	C	60			CCSQSL101J50	
L	204			Ferri-Inductor	LAU470K	C	61			CEA4R7M16NP1L	
L	205			Ferri-Inductor	LAU4R7K	C	70			CCSQCH200J50	
L	206			Ferri-Inductor	CTF-157	C	103			CEA150M16LS	
T	51			Coil	CTC1029	C	105	224		CEA470M16LS	
T	201			Coil	CTB1020	C	154			CKSQYB153K25	
T	202			Coil	CTB1004	C	159	(WG, EW) 160 (WG, EW)		CKSQYB183K25	
T	203			Coil	CTB1040	C	159	(ES, UC) 160 (ES, UC)		CKSQYB393K25	
T	204			Coil	CTE1025	C	161			CEA101M10LS	
T	205			Coil	CTE1026	C	202	212		CKSQYB332K50	
T	206			Coil	CTE1027	C	204	208 210		CKSQYB223K25	
CG	1			Surge Protector	DSP-201M-S008	C	205			CCSQCH220J50	
CF	51			Ceramic Filter	CTF-182	C	206	207		CCSQCH820J50	
CF	201			Ceramic Filter	CTF1041	C	211			CEA2R2M50LS2	
					(CTF1027)	C	213			CCSQCH470J50	
CF	202			Filter	CTF1085	C	218			CEA2R2M35NP1L	
					(CTF-100)	C	220			CCSQCH430J50	
X	201			Crystal Resonator	CSS1014	C	221			CCSQCH100D50	
** VR	53			Semi-fixed 150k Ω (B)	VRTB4VS154	C	222			CSZA010K35L	
** VR	152			Semi-fixed 6.8k Ω (B)	VRTB4VS682	C	225			CKSQYB333K25	
** VR	153			Semi-fixed 4.7k Ω (B)	VRTB4VS472	C	226			CKSQYF473Z50	
				FM Front End (WG, EW)	CWB1037	C	227			CEA4R7M35LS	
				FM Front End (ES, UC)	CWB1039	C	229			CEA470M16LS	
RESISTORS						C	230			CEA220M16LS	

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
R	5	58 210		RS1/10S682J	
R	6	131		RS1/10S102J	
R	7	152		RS1/10S223J	
R	8	10		RS1/10S152J	
R	9			RD1/4PS151JL	
R	52			RS1/10S331J	
R	53	57 204 213		RS1/10S473J	
R	54	103		RS1/10S333J	
R	55	60 215		RS1/10S153J	
R	56			RS1/10S123J	
R	59	(WG, EW, ES)		RS1/10S183J	
R	59	(UC)		RS1/10S682J	
R	61	62 101		RS1/10S472J	
R	75			RS1/10S474J	
R	102			RS1/10S392J	
R	156	(WG, EW) 157 (WG, EW)		RS1/10S332J	
R	156	(ES, UC) 157 (ES, UC)		RS1/10S202J	
R	201			RS1/10S220J	
R	202			RS1/10S681J	
R	203	206 214		RS1/10S222J	
R	205	209		RD1/4PS470JL	
R	207			RS1/10S822J	
R	208	211 212		RS1/10S103J	

CAPACITORS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
C	1	201 209 223 228		CKSQYB103K25	
C	2	3		CKSQYB102K50	
C	51	52 53 54 59 132 203 215 216 219		CKSQYF473Z50	
C	55	62		CCSQSL330J50	
C	56	63		CEA47M50LS2	

Unit Number :
Unit Name : Mechanism Control Unit

MISCELLANEOUS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
** IC	1				BA3430FS
** Q	1			Chip Transistor	2SC4116
** Q	2			Chip Transistor	DTCL43ZU
** Q	3			Chip Transistor	DTBL13ZP
** Q	4	6		Chip Transistor	2SC3295
** Q	5	7		Chip Transistor	2SB1441JU

RESISTORS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
R	1	2 3 4		RS1/10S153J	
R	5	6 13		RS1/10S181J	
R	7	8		RS1/10S334J	
R	9	10		RS1/10S133J	
R	11	12		RS1/10S183J	
R	14			RS1/10S270J	
R	15			RS1/10S823J	
R	16	21 26		RS1/10S473J	
R	17			RS1/10S333J	
R	18	19		RS1/10S224J	
R	20	24 25 29		RS1/10S103J	
R	22	23 27 28		RS1/1S2 21J	

CAPACITORS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
C	1	2 3 4			CKSQYB391K50
C	5	6	22 μ F/6.3V		CCH1065
C	7	8 14			CKSQYB103K50
C	9				CKSQYB152K50
C	10	12			CKSYB104K25
C	11		6.8 μ F/25V		CCH1066
C	13		100 μ F/6.3V		CCH1067
C	15	16	4.7 μ F/25V		CCH1064

Display Unit

Consists of

- Display P. C. Board
- Reset P. C. Board

Unit Number :

Unit Name : Display Unit

MISCELLANEOUS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
**	IC	901			S-80740AH
**	IC	902			BX-1393
**	IC	903			LC7582P
**	IC	904			PD4189
**	Q	901	Chip Transistor		DTC144EK
**	Q	902	Chip Transistor		2SC2712
*	D	901 903 904 905	Chip Diode		MA153-MC
*	D	909 910	LED		LN12C56
L	901		Ferri-Inductor		LAU101K
X	901		Ceramic Resonator		CSS1050
**	S	901 902 903 904 905 906 907 908 909 910	Switch	CSG-253	
**	S	911 912 913 914 915 916 917 918 919 920	Switch	CSG-253	
**	S	921 922 923 924	Switch	CSG-253	
**	IL	901 902 903	Lamp 8V 60mA		CEL1112
**	IL	904 (WG, EW) 905 (WG, EW) 906 (WG, EW)	Lamp 14V 40mA		CEL-147
**	IL	907 908 909	Lamp 14V 40mA		CEL1013
			LCD		CAW1042

RESISTORS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
R	901 902 904 905				RD1/4PS103JL
R	906				RD1/4PS333JL
R	907				RS1/10S470J
R	908				RS1/10S223J
R	909				RS1/8S473J
R	910 911				RS1/10S473J
R	912 (WG, EW) 913 (WG, EW)				RS1/8S471J
R	914 915 919 920 921				RS1/8S471J
R	916				RS1/10S104J
R	917 918 922 923 924 925 926 927				RS1/10S471J
R	930				RS1/10S103J

CAPACITORS

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
C	901 902				CEA470M6R3LS
C	903				CKSQYB331K50
C	904 905 906 907 908				CKSQYB152K50
C	909				CKSQYB223K50
C	910				CKSYB103K50

C 911 912

CKSQYB103K50

C 913 914

CCSQCH21J50

Unit Number :

Unit Name : Connector P. C. Board

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
#	D	1 2			F1SR35-100A
**	S	1 2 3	Switch (LOAD, END, F/R)		CSN1005

Unit Number :

Unit Name : Switch P. C. Board

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
**	S	1 2	Switch (METAL, PLAY)		CSN1005

Miscellaneous Parts List

Mark	====	Circuit Symbol & No.	====	Part Name	Part No.
**	S	1 2	Switch (CSENSE $\times$ 2)		CSN1012
**	S	3	Switch (EJECT)		CSG1033
*	SO	1	Solenoid		CXP1003
*	SO	2	Solenoid		CXP1004
*	SO	3	Solenoid		CXP1009
**	HD	1	Head Unit		EXA1088
**	M	1	Motor Unit		EXA1089

23. PACKING METHOD

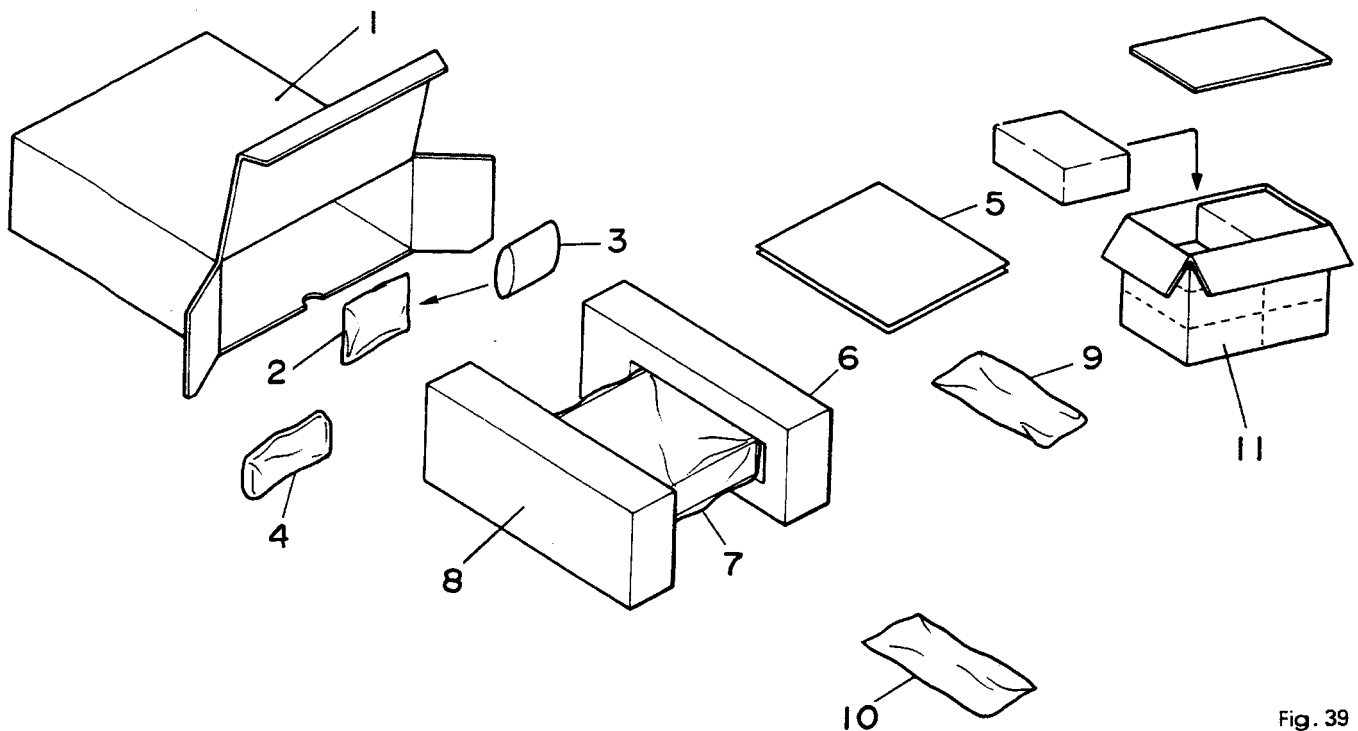


Fig. 39

• Parts List

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Carton (WG)	CHG1595		5-4	Card (WG, EW)	
		Carton (EW)	CHG1594			Card (UC)	
		Carton (ES)	CHG1622		5-5	Passport (WG)	
		Carton (UC)	CHG1593		6	Styrofoam (R)	CHP1212
	2	Remote Control Assy (WG, EW)	CXA2860		7	Cover	CEG1043
		Remote Control Assy (ES, UC)	CXA2958		8	Styrofoam (L)	CHP1211
	2-1	Cover	CZN3224		9	Accessory Assy (WG, EW)	CEA1426
	3	Air Cushioned Bag	CEG1055			Accessory Assy (ES, UC)	CEA1460
	4-1	Battery	CEX1006		9-1	Spring (× 2)	CBH-865
	4-2	Fastener (Rough Surface)	CNM1716		9-2	Cord (× 1)	CDE1289
	4-3	Fastener (Soft Surface)	CNM1717		9-3	Bush (× 1)	CNV1009
	5-1	Owner's Manual (WG)	CRD1288		9-4	Strap (× 1)	CNF-111
		Owner's Manual (EW)	CRD1286		9-5	Handle (× 2)	CNC1631
		(English, French, German, Spanish)			9-6	Cap (× 2)	CNV2156
		Owner's Manual (EW)	CRD1287		9-7	Screw Assy	
		(Swedish, Norwegian, Dutch, Finnish)			9-7-1	Screw (× 1)	CBA-102
		Owner's Manual (ES)	CRD1300		9-7-2	Screw (× 1)	CBA1002
		Owner's Manual (UC)	CRD1289		9-7-3	Screw (× 2)	CBA1116
	5-2	Caution Card (WG, EW)			9-7-4	Nut (× 2)	NF50FMC
		Caution Card (ES, UC)			9-7-5	Screw (× 1) (ES, UC)	HMF40P080FUC
	5-3	Caution Card (WG)			10	Panel	CNS1690
					11	Contain Box (UC)	CHL1593